

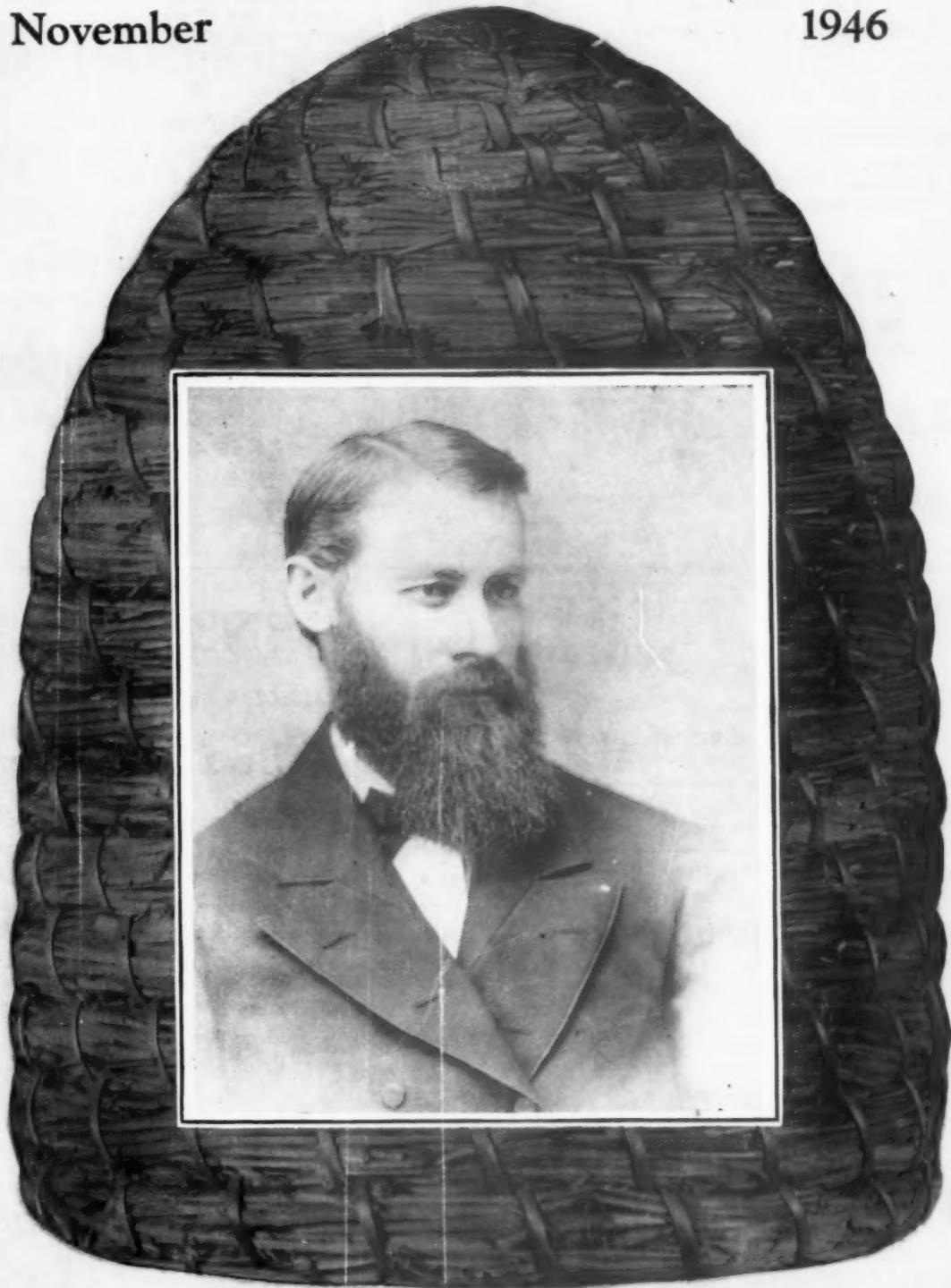
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American Bee Journal

HAMILTON, ILLINOIS

November, 1946

Volume LXXXVI, No. 11

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By Ralph Lee, in the Oregonian, Portland; sent in by J. Skovbo, used with permission of Phillip H. Parrish, Editorial page.

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An appeal to O. P. A. for price relief had been made but final action had not occurred before this agency passed out of the picture June 30th last. Some price increases on goods we sell had already been made by the manufacturers, such as bee comb foundation, smokers, etc., which we necessarily passed on.

Effective July 15th we made an increase in price of bee supplies of 10% applying on items not previously increased during 1946. This increase should have been made sooner and the present increase will have little effect upon 1946 honey producing costs, since the season is nearly over.

This has been a trying season as we never had nearly enough lumber at any time to supply our old customers and were forced to cut down many orders to spread what little we had. Some lumber is almost impossible to buy which accounts for our having been out of sections at times. No one can tell what 1947 will be like but it appears that lumber will remain tight for many months. We will do the best we can to make the best supplies we know how with materials available and sell them at the lowest prices consistent with good business practice.

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More About That New Clover

A clover that increases rapidly from deep underground rhizomatic roots

By Frank C. Pellett

SO much interest has been manifested in the clover described in this magazine in November, 1945 that a progress report seems necessary. It is one of about 100 new legumes which have been planted in the test garden maintained by the American Bee Journal on the writer's farm at Atlantic, Iowa. These have been brought together through correspondence with agronomists and plant collectors throughout the temperate world.

The new clover is *Trifolium ambiguum* which comes from the Caucasus in eastern Europe. Since it is new to this country and had no common name, officials of the Iowa Beekeepers Association wrote the secretary of agriculture at Washington to suggest that it be named "Pellett Clover" as a compliment to the effort being made in the test garden. The name "Kura Clover" has also been suggested.

This new clover is a deep rooted perennial and four year old plants in our garden have a root system such as one rarely finds with any plant. A plant dug up at the time of the honey plant conference in 1945 had a mass of roots sufficient to nearly fill a bushel basket although a large portion of the extensive spread was left in the ground when cut off at three feet below the surface. Indications were that the roots must penetrate to ten feet or more in depth to judge from the size at the point where they were cut.

The surprising thing about the plant is the way in which it branches and rebranches, constantly sending new leaves to the surface. If any branch is cut off and reset it grows vigorously and the new plant spreads in similar manner. Root divisions set in April on our grounds have multiplied by twenty or more by September. It is easy to establish new plantings by setting such divisions in rows three or four feet apart with plants twelve to eighteen inches apart in the row. In a little more than a year such rows are completely filled until one cannot tell where the original plants were set and there is a solid mass of clover over the area.

The plants are still in the experimental stage and there is little information available as to the requirements of soil and climate to insure

success. There has been a wide distribution of plants by Melvin Pellett of Pellett Gardens, Atlantic, Iowa for trial. Hundreds of questions are asked



Root divisions, set in rows four feet apart in April and May, had spread nearly to fill the vacant space by September.



A portion of the roots uncovered to show how they branch and form new plants.

for which, as yet, there are no answers. We only know that it does exceedingly well on rich black soil of Pellett Gardens. A few reports have been received which indicate that it does poorly on sandy soils. Whether this may be true of all light soils remains to be determined.

No seed is available as all seed has been sent to the various experiment stations which have shown an interest. Others who wish to try the plant must be content with root divisions until such time as more seed is harvested. The plant increases so rapidly by root division that one can start with a few plants and by re-planting each year soon have as large an area as he wishes. This method has the added advantage of insuring an even stand, assuming of course that it proves adaptable to the soil on which it is planted.

Our start with clover was from about a dozen seeds planted on April 22, 1941. Four or five plants came up in the short row and by 1943 there were several hundred when the merit of the plant was recognized. In 1944 several rows were set in the open field and by the following spring there was a wonderful little field of clover when it came into bloom. The bees worked the flowers vigorously and several pounds of seed were harvested.

The flowering time is the entire month of June and the first half of July and there is every indication of a good yield of nectar for the bees. Instead of a deep corolla such as the red clover this one is very shallow so that all nectar can readily be secured by the bees. The flower is similar to alsike in color and appearance although slightly larger with the head more elongated. In 1945 our plot set seed very heavily but in 1946 with less favorable weather conditions little was secured. It is very apparent that the plant depends upon bees for pollination. In 1945 with the bees swarming over the plot many heads contained a seed for nearly every floret. When the bees deserted the field little seed was set.

The field is a mass of flowers at blooming time and a very pretty sight. During much of the year only the basil leaves are present but in late May the flowering stems appear and they reach a height of about two to three feet with several flowers for each stem. Indications are that only one crop of hay could be cut per year although we have not yet cut a crop and removed it to see whether a second bloom would occur.

The habit of growth is such that one would expect the plant to remain indefinitely when once established. It is of special promise for waterways in erosion control, for roadsides and other places where a soil binding plant is essential. Until the experiment stations have had time to grow it along with other plants and to determine its place in the crop rotation no recommendations can be made. On our grounds it looks promising for either meadow or pasture but it has not yet been put to test for such purposes. Of one thing we can be sure, it is a good source of bee pasture. If it is used generally in the soil conservation program the beekeeper will find a substantial addition to his nectar supply.

It appears to be entirely winter hardy and not subject to injury from heaving which proves disastrous to the clovers in common use. The leaves are similar in appearance to red clover although some are very much larger.

In localities where it succeeds it offers much promise of stabilizing the bee pasture, through planting the roadsides. Its habit is such that it will not be easily killed by cutting and apparently when the roads are worked and the soil disturbed it will grow again from the roots which are covered by machinery.

It is highly desirable that this new clover be tried under a wide variety of conditions to determine its value in the North and in the South, to learn whether it will succeed on wet soils or dry soils, on acid soils or sweet soils and whether it will stand competition with weeds and with grasses. In our test plots it has had the advantage of good soil with no plant competition.

As stated in the former article, the advantages of this clover for the bee-keeper are: 1) its apparent permanence when once established. 2) its abundant flowers with nectar readily available to the bees. 3) its habit of spreading from the root which permits an increase in the number of plants even though it is not permitted to form seed. 4) the extensive root system which serves to prevent erosian and makes it attractive for use in soil conservation.

The short life of sweet clover and alsike are the worst drawback to their use and add to the uncertainty of bee pasture from year to year. This clover has been found to branch at varying depths below the surface and since any portion separated from the main stem continues to grow little damage is caused by heaving. A long lived

clover is certainly very desirable for the beekeeper. As one soil conservation official said, "Won't it be fine if we can find a clover that is hard to kill?"

Washington Denies Appeal

During the war the bee supply manufacturing companies in the United States organized an association known as Bee Industries Association, with the purpose of protecting the interest of the industry in Washington. This Association recently appealed for an allocation of lumber to be used in the manufacture of bee hives during the coming year. The word has recently been received from Washington that this appeal has been denied.

Bee supply manufacturers report unless some favorable news changes the picture within the next few months, the supply of bee hives for the coming season will be less than at any time since the beginning of the war.

In the past few years the importance of pollination in the food program has been very helpful in getting attention for beekeepers in Washington. However, the present excitement over home building to ease the housing shortage completely overshadows everything else in the Capital. The building industry has been very active in lobbying, so that the appeal of a small industry like ours receives scant attention.

Much improvement in the housing situation doesn't seem possible in the near future. Lumber production is definitely on the up-grade now but the supply is far short of requirements. About the only thing that can mean more hives in dealers' hands is the beekeepers themselves becoming aroused and bringing pressure on representatives in Washington.

Honey Ceiling Released

As mentioned in an attached slip in the October number of the American Bee Journal, all honey prices were decontrolled under date of September 27, 1946. Since this date honey has sold at various prices. In our accompanying slip with the October number of the American Bee Journal, we suggested that leaders in the industry favored a price of approximately 20 cents in carload lots; of \$1.75 to \$2.25 for 5-pound pails; and \$3.00 to \$3.25 for 10-pound pails.

(Please turn to page 485)

Sulfa Officially Approved And Controlled

By Robert E. Foster, Florida Apiary Inspector

THE need for official means for the control of American foulbrood, theretofore lacking in Florida, led to the enactment of the Florida Bee Disease Law of 1919. Responsibility for administration of the provisions of the law was vested in the State Plant Board. Dr. Wilmon Newell, an outstanding scientist and administrator, with an extensive knowledge of the apiary industry and its problems, was at that time Plant Commissioner. He was in close consultation with the framers of the Bee Disease Law, and strongly recommended that it contain a provision requiring the destruction of all bees, brood, and frames, and burning, or at least scorching of, the hive bodies, in affected colonies. However in his wisdom, he saw that provision was made for the substitution of any effective treatment in lieu of burning that might later be developed.

The Board believes that its administration of the law has been effective, and has saved the apiary industry of the state, even though many diseased colonies were destroyed, from serious financial loss. This was accomplished in large measure through insistence that inspectors examine every frame of brood in every hive in all commercial, and many non-commercial, apiaries in the state. Strict orders were issued, and complied with, that no quarantine be lifted, and no certificate of freedom from disease be issued, without examination of this intensive nature.

At the same time, the Board has been distressed because of the fact that the treatment, burning, of diseased colonies, while effective in checking the spread of the disease, frequently was responsible for great losses to the owner of the affected yards. It has kept itself informed as to the effectiveness and practicability of the several treatments, or "cures" that have swept over the nation from time to time. Careful study and consideration of the results and manner of application of such treatments con-

vinced the Board that they were not fit substitutes for destruction of all diseased colonies.

However, the recent results obtained by scientists and practical beekeepers through the use of sulfa drugs, led the Board to believe that there might be some merit in this treatment. The Apiary Inspector was instructed to install a small experimental apiary on the grounds of the Florida Experiment Station, at Gainesville, for the purpose of developing some first-hand information as to the effectiveness of sulfa, manner of application, and other essential facts. After careful consideration of the data developed by the Apiary Inspector which was in line with that published by Haseman, and others, the Board approved of the substitution, under certain conditions, of sulfathiazole feeding in lieu of burning. Board members, in arriving at this decision, were influenced by the following facts:

1. There was considerable doubt as to whether the courts would support the Board in its demands that infected colonies be destroyed by burning in the face of statements by competent authorities that sulfathiazole would effect control of the disease.

2. These same authorities had apparently demonstrated that even severely affected colonies would be restored to their normal honey and wax production capacities through the feeding of a mixture of sulfathiazole, sugar, and water.

3. It was a known fact that beekeepers throughout the state and nation were surreptitiously hiding out infected colonies and treating them with sulfa combinations, and it was deemed best to approve of the use of the drug under official supervision and thereby restore the honest and frank relationship between beekeepers and inspectors.

4. That while the use of sulfa was

in the nature of a large scale experiment, the chances for success in Florida, where all commercial and many non-commercial apiaries are inspected a number of times annually, are greater than would be the case in other states without funds to employ sufficient personnel to keep the apiaries under constant supervision.

Instructions of the State Plant Board to the Plant Commissioner relative to the conditions and safeguards under which apiaries within the state of Florida known to be infected with American foulbrood may be treated with sulfathiazole.

Subject to the conditions herein-after specified, colonies of bees found to be infected with American foulbrood may be treated with sulfathiazole in accordance with the provisions of Rule 41 H of the Board.

1. Infected colonies shall be placed under quarantine and otherwise handled in accordance with the provisions of the Rule 41 F of the Board.

2. Bees in infected colonies shall have available before them at all times while this quarantine is in effect a solution made up of $\frac{1}{2}$ gram of sulfathiazole, 1 $\frac{1}{4}$ lbs. (1 quart), of sugar, and sufficient water to make 1 gallon of syrup. This solution shall be fed to the bees in manner and form generally accepted by the apiary profession for the feeding of the bees and approved by the Board's Apiary Inspector.

3. Treatment of affected colonies shall be under the supervision of an inspector of the Board for such periods as the apiary may be under quarantine.

4. All costs for materials used in the treatment shall be borne by the owner of the quarantined apiary or colonies.

Compliance with the spirit, as well as the letter, of these requirements is expected in connection with the treatment of diseased colonies.



Staple on bottoms, staples slanting.



Deep top screen, with top cleats for air.



Porch screen, wide open entrance.



Ready to go. Note tissue paper to close holes.

How to Move Bees

If the bees are to be moved a short distance such as across the yard or across a city lot, a relatively easy way is to move the colony a little each day and make the change so gradual that there is no serious confusion. If no other hives are close, the bees may be moved further each time than is possible where many hives are near together.

The actual distance which may be safe can be best determined by noticing whether the bees of the colony after the move tend to drift into the entrances of other nearby colonies. If they easily find their own entrance without being attracted to others in their confusion, the distance is a safe one and it will often vary from just a foot or more to several feet at a time, depending on conditions in the apiary itself.

Moving Bees a Distance

When bees are to be moved entirely out of the yard itself, the flight range of the bee will govern the proper method to use. Usually, if bees are to be moved two or more miles away from where they are located, there is little chance that they will return in flight, but after having oriented themselves in their new place, they will easily mark their return to the new location. However, if bees are to be moved a half mile or more away, or anywhere within their effective flight range, the operation is more difficult because of the bees' tendency to return to the old location. The best way to move bees within their flight range and yet out of the yard is to move them to their new location late in the day after all the field bees are in the hive. The bees may be prepared as for moving longer distances, if necessary in hot weather. After the bees are unloaded and relocated in their new place, put slanting boards up from the ground to the hive in front of the entrance so that the bees will be compelled to notice the changes as far as possible in their flight. Even so, a certain number will return to the old place. Put sufficient hives with combs in the old location to catch any returning bees which may be united with

weak colonies in the yard in their new place after a few days by putting the accumulated bees on combs over single thicknesses of newspapers on colonies to which they are to be united. A single hole in the newspaper will allow the bees gradually to gnaw the paper away. Little return flight will be noticed after this has been done.

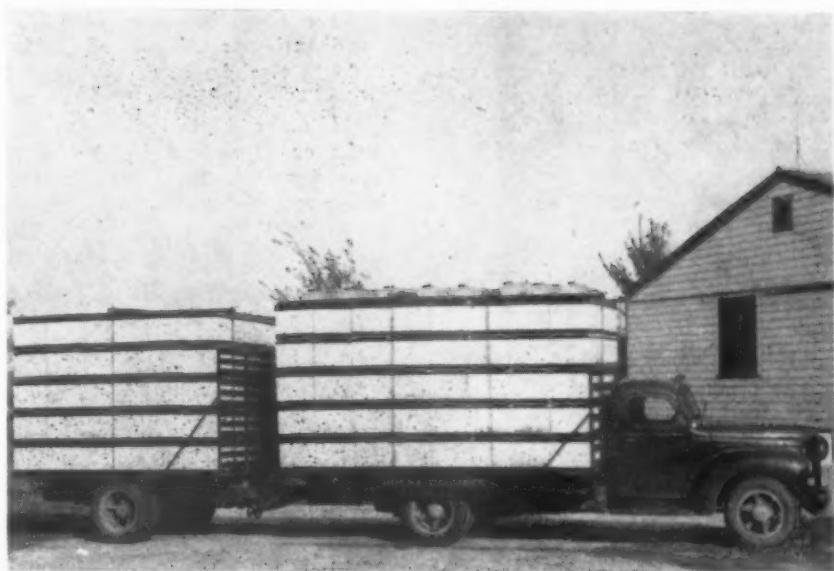
In moving beyond flight range, the bees often have to be prepared for the move. The bottom board must be securely fastened to the hive body, usually with ordinary wide hive staples. Slanting these staples in opposite directions prevents slipping. Two staples on each side are sufficient.

Frames during moving must be secure. If self spacing frames are used, they can be crowded tightly to one side and a wad of paper forced down between the outside frame and the wall of the hive, or a small nail put in the ends of the top bar of the last frame to hold all the frames tightly in place and prevent their swinging sidewise. If loose hanging frames are used, the top bars may be nailed in place at the ends in the same fashion, making sure that each frame is firmly held in place but not driving the nails entirely down, so they can be readily removed later. A quicker method is to nail a quarter inch thin strip of wood across the top bar at either end, fastening alternate top bars with nails as in the diagram. Properly fastened, the hives will stand considerable rough treatment without injury. New tender combs will not stand as much hard usage as the older brood combs.

To provide sufficient clustering space above the combs and at the entrance, a moving screen should be used. The top screen should be at least two inches deep, the porch screen at least an inch deep.

The porch screens are fastened up against the front of the hive with small strips of wood nailed on the tin side strips and nailed in the hive temporarily during the moving. The top screens are either held at the corners with slanting nails or at the sides with staples until the move is over. Bees so prepared can be taken long distances usually with little loss even in hot weather. It is best to move at night for both the comfort of the bees and the peace of mind of the driver.

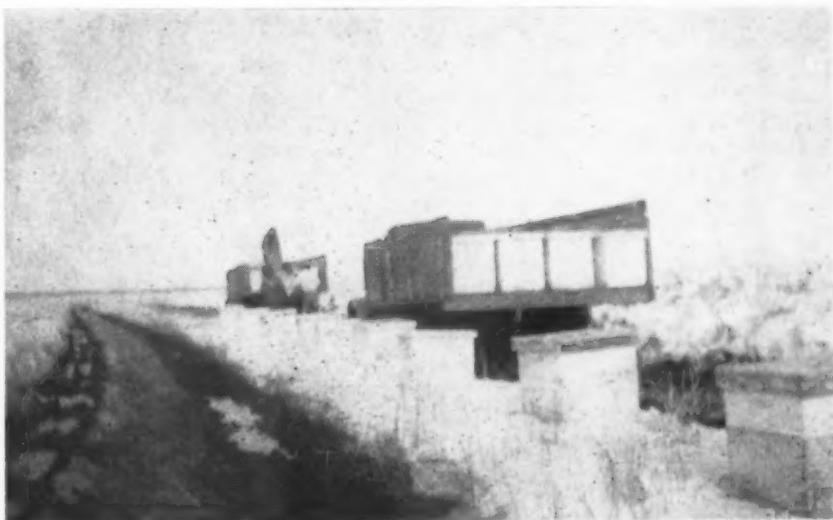
On unloading the bees in their new place, see that the load is parked under a tree where the bees



Truck load and trailer load, well secured and well ventilated. (Rocke Bros., Illinois.)



Car load, plenty of ventilation and well secured, with aisles for inspection.



In colder weather, move with no preparation. Unload when ready.

are shaded during unloading, and allow the bees to remain in their new spot until the load is all off before attempting to remove the screen. That allows the first bees off to settle down somewhat before the screens are removed. In removing the screens in hot weather, it is often useful to sprinkle the bees with a spray of water before the screens are loosened to prevent heavy flights and subsequent drifting. If it is possible to arrive in the new location so that bees may be unfastened just before dusk, it is an ideal situation.

In loading bees on a truck, make sure that the bees are loaded if possible so that the combs are parallel

with the truck bed, as this reduces the disturbance of the individual combs to a minimum during the trip.

Also in preparing the hive, you should make sure that any small cracks or crevices are stuffed with tissue paper, cotton, rags or some similar material so that the bees will not work their way out of these places while they are on the way.

In cool weather in the fall or early spring, it is often possible to move bees in the early morning or late afternoon when the bees are not flying without any precaution at all for moves of a few miles, or when the bees are to reach their new location

and be unloaded before the next day. Since the weather is cool, the bees will not attempt to come out of the hive to any extent during the move, and usually they may be left on the truck until the following morning and unloaded while the weather is still cool. No attempt is made to close entrances or prepare the bees in any way. It is quite satisfactory when the weather conditions are suitable. Some beekeepers move with entrances open and without preparation in any kind of weather in this same manner, but it would usually be found much more convenient, safe and satisfactory to take suitable precautions in accordance with the weather.

The Proper Use of Sulfa

By G. H. Cale

Stricker hit a hot iron last month when he says, in effect, that John Paperhanger, with back fence colonies, may sock a little sulfa in some bad AFB, to the detriment of his neighbors, and then go paper another mansion. This would make it tough on the inspector. Some think Stricker wrong, some think him right. All think that Stricker should put himself through a course of sprouts with sulfa in his own yards before he settles down to an opinion about whether it works or does not work. We agree, Milton; we recommend just that. Then see how much your opinion changes.

When he raises the suggestion that the commercial man, whose management now keeps disease low, may do better to stick to his present methods, he really does say something. Many will do just that. Also it is true that the effect of sulfa on European foulbrood is nil so far. In places where EFB is prevalent and severe little dependence can be placed on sulfa for its control.

Florida steps out in the right direction when she permits the use of sulfa not only for the control of American foulbrood, but also for its treatment under the supervision of the inspector. Whether treatment will finally result in a disease germ that will in turn live happily on sulfa and so kill the goose with the golden egg remains to be seen. That is a danger.

As we see it there is one best way to use sulfa and in our operations it is the way we now use altogether, with certain permitted exceptions. Whenever colonies are fed, sulfa is added to the syrup at the rate of a half teaspoon of soluble sodium sulfathiazole to a ten pound pail of feed regardless of the strength of the feed. So spring packages get it and wintered colonies get it, if they are fed. We also use high producing, resistant stock as a further wall against disease. If we find disease the combs are melted and the bees usually gassed.

Some beekeepers will prefer to use common stock which may or may not be quite susceptible to American foulbrood. If so, a preventive feeding of sulfa can be made in spring, before the honeyflow, using syrup of any strength, each ten pound pail with half a teaspoonful of soluble sulfa. Sulphathiazole tablets may also be used, veterinary, half gram (7.72 grain), one tablet to the pail, crushed finely. Three feedings at intervals will do. Maybe less would do. No one knows. We use three.

Now for exceptions. A good colony with disease may be saved easily without losing the bees. Drive the bees off of their bad combs and down into a good set of drawn combs, with a carbolic board. Give the colony a resistant queen if you can, and at least one feeding of sulfa. If you keep common stock use three feedings

of sulfa. There will be no disease. Melt up the combs that had the disease and clean the equipment for use again.

With sulfa it is no longer necessary to melt super combs in which no brood has been reared. Let the bees clean them out and continue to use them. However, do not relax your vigilance with the colonies. Watch for disease every time you open a hive and proceed as you decide with it. From the long view, with the possibility of a build-up of disease against sulfa, it is the best policy to melt the combs from all diseased colonies, even if the bees themselves are in sufficient numbers to be saved.

Irish Crop Failure

"Farmers' Gazette" published in Dublin reports the Irish honey crop for 1946 as a complete failure. Early crops were extremely short and the weather has turned very cold and rainy, decreasing the possibilities of the usual heather flow.

Enormous Pack of Fruits and Juices

According to the Federal Government, the 1946 processing of deciduous and citrus fruits and juices is far above 1945 and pre-war levels. This indicates a lively competition for honey for table use.

A. J. Cook--1842-1916

Kent Pellett

A. J. Cook taught the first course in beekeeping in any college in the United States.

He began keeping bees at Michigan State College, first of our state agricultural colleges, in 1868, and offered a course in beekeeping that same year.

The school had an outstanding staff of teachers who exercised a dominant influence over the agricultural education of the whole country as other such colleges came into being, first in one state, then another.

And not the least outstanding of Michigan's teachers was Cook. His first course in beekeeping was no makeshift. It was scientific and thorough and practical. And he made beekeepers of his students. He taught beekeeping until he left Michigan.

Cook was born to his profession, having "that divine gift of enthusiasm for his work which is the first requisite of a teacher," according to one of his students.

"His interest in his students has been always a living, active interest, that went right out and fought for them," said the Pomona college paper, where he later taught, "an interest that not only helped them to find their life work and get into it . . . but ever afterwards supported and encouraged them to great efforts."

* * * *

Albert John Cook was born on the farm near Owasso, Michigan. He attended the country schools, then he went to Michigan State College and graduated with the second class ever to leave that school.

At college he continued the habits he had learned on the farm. He

would rise at four o'clock in the morning and worked long hours with great vigor. He did not his farm habits in fifty years of college life.

But his constitution was not entirely immune to the effects of overwork, for after graduation he went to California to seek a cure for lung trouble. There he taught for three years. Then, recovered, he took two years of graduate work at Harvard.

At twenty-five he returned to Michigan to teach first mathematics, then zoology and entomology.

When he included beekeeping in his classwork he at once became one of the best known beekeepers of the country. He attended the conventions and wrote for the bee magazines.

When the state experiment station was established at the college in 1888, Cook was the entomologist in charge and carried on the first experimental work with bees at the college.

He was one of the first to ask for measure for foulbrood control. He was the first to use kerosene emulsion for direct control and to recommend the use of arsenates in the control of the codling moth. But his careful eyes also soon noted the danger to bees when fruit trees were sprayed while in bloom.

Probably his most important work for beekeepers was in proving the vital link between bees and fruit yields, a link that has become of tremendous interest in late years. He covered some trees with mosquito netting while they were in bloom. Others he left bare to the visits of bees and other insects. The difference in yield was startling.

The results seemed hardly credible at the time. But he carried on the

experiment on so large a scale as to leave no doubt of the value of bees in fruit production.

Cook was in demand at farmers' institutes. He helped to form the Michigan State Beekeepers' Association, and usually acted as its presiding officer. He was president of the National Beekeepers' Association for several years.

Cook was instrumental in securing a postal ruling which allowed queen bees to go through the mail. This was a vital factor in the development of commercial queen rearing. He contacted the right authorities in Washington. And he made two practical suggestions which eliminated much of the difficulty beekeepers had been having in mailing queens. The first was that cages should be covered with a double thickness of wire gauze. The other was that sugar, not honey, should be used in feeding.

In 1876 he published his book, "Manual of the Apiary." It was composed of his classroom lectures. Popular for many years, it went through nineteen editions.

In 1893 Cook yielded to the golden magnet of the West to become professor of biology at Pomona College in California. He lobbied for horticultural legislation in that great fruit state, which was placed on the statute books under Governor Hiram Johnson.

Johnson made him state horticultural commissioner. He had \$100,000 at the command of his office, a lot of money for a state official to have in those days.

Iowa.

Scientific Beekeeping

This is the title of a new booklet by E. L. Sechrist and D. F. McFarland, priced at \$1.00 and printed by the Earthmaster Publications, Roscoe, California.

The book is for those familiar with beekeeping and yet not satisfied with the results which are achieved. It combines use of thermodynamics with

the clear brood nest method of supplying a constant optimum temperature, together with the clear brood nest as described by Sechrist in his book "Honey Getting."

It also embraces much fundamental beekeeping on the behavior of the cluster and the habits of bees as well as the application of temperature control by the use of heater units under the colony. Copies may be obtained from this office by those interested.

"Reese Breaks Out"

We are in receipt of an advance copy of the Farm Quarterly fall issue which will be on sale some time this month. It carries an article on "Honey in the Comb," by Charles Reese, Ohio. This is colored. Mighty good work, Charles. Anybody interested can secure a copy of the Farm Quarterly on the news-stand at this time.

Beekeepers Are So Scotch

By Milton H. Stricker

"BUT when it comes to wintering bees — beekeepers are so damn Scotch—". I mentally bolted from my chair. The words were G. H. Cale's and he was saying them to a gathering of beekeepers one snowy day of January in 1945. It was a statement that held everyone's attention, but somehow I felt that G. H. was speaking directly to me, saying, "Beekeepers—and you, Stricker, are so damn Scotch!"

Cale went on to prove his point showing that beekeepers are always interested in wintering all colonies, coddling and pampering the weak sisters and being disappointed with their high percentage of winter loss. "Take your winter loss in the fall!" exclaimed Cale. "Don't try to winter colonies that will never make the grade!"

Sound advice and yet it is puzzling that beekeepers do nail the mouse guard upon the colony in the fall when they know that the colony will only be alive in the spring if the higher powers intercede. Yet it often happens. Perhaps it is the unnatural vanity of the beekeeper who always wants more colonies—always increase—never decrease. When at the winter bee meeting a brother "bee-er" asks,

"How many colonies have you?" everyone wants the figure as high as possible never thinking that five colonies in peak condition are as good as five hundred poor colonies.

But, I was just as guilty, and Cale's words came like a scourge to my conscience for just two months before I had nailed down the covers on colonies that didn't have enough honey to winter, salving my conscience with: "Well, things are tough all over"

To make additional excuses the fall flowers were in the best condition possible. In late August of 1944 there was ample moisture in the soil, clear weather was predicted, aster, goldenrod were blooming profusely, colonies were building up with a potential gathering force that would be able to harvest the biggest crop on record. A truly wonderful state of affairs, this was after the failure of the summer honeyflows that year.

But, in the words of E. G. Carr: "Nature didn't cooperate!" Early in September we had a killing frost, nipping the goldenrod in its early finery and setting back the aster so that it didn't yield but about 1/100 of what the beekeepers expected and possibly 1/5 of its usual dependable

yield. In consequence colonies were boiling with bees and beekeepers were boiling about the lack of honey. I, and many others, "robbed Peter to pay Paul," by taking an extra frame from one colony and giving to others. Many colonies that showed their inability to gather were united by placing a stronger and consequently heavier colony on top. Some other colonies with old queens and undesirable traits were "gassed off" to supply honey to others who needed extra feed. Feeding sugar was altogether out of the question no matter how many coupons you had since New Jersey stores didn't have enough to fill the needs of housewives. Asking a grocer then for sugar received the same answer as asking him for honey now (October, 1946): "What is that stuff?"

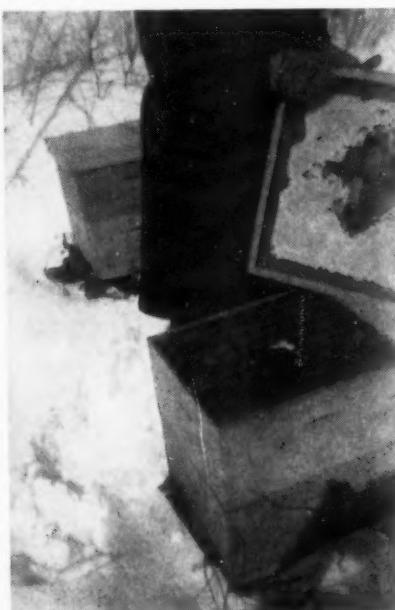
Altogether twenty per cent of my apiary total was destroyed or united, and I closed down the lids saying, "Well, that's a good job done!" Deep in my heart I knew it wasn't and that January day when Cale said, "Beekeepers are so Scotch!" I knew I hadn't done right. More of these colonies should have been united. Why had I tried to winter colonies on less than sixty pounds of honey, especially since I knew that you can do more with one hundred colonies brought successfully through the winter and critical spring period than with double the amount if they are weak, with spent bees, and drone laying queens.

The day following our annual bee meeting found me tramping the streets, trying to obtain sugar. Wholesalers got tired of seeing me every day and hearing my plight. Finally one in desperation grabbed my coupons and said, "Pull your truck up to the loading platform!"

Home, I began the arduous job of making "Fuller" candy. I can remember the recipe yet: 12 pounds granulated sugar, 1½ pounds Karo (one pint), 2½ pints of water and ¼ teaspoon cream of tartar. Place sugar, Karo, and water in vessel of ample size and boil until temperature reaches 230 degrees F. Then, add cream of tartar and continue boiling



Applying Fuller candy in inner cover. (The man? Paul Holcomb, N. J. Inspector).



You can see that the bees do like it. The stimulation supports brood rearing.



Feeding with dry sugar on top of inner cover.

until 238 F. is reached. Avoid boiling fast and do not stir while cooking. When 238 F. is reached, remove from heat and let cool without stirring until temperature drops to about 130 degrees F. Then, stir vigorously until mass becomes slightly cloudy; pour into inner covers that have escape holes covered with wax paper.

I still remember the cooking of this mess and the way each operation could be timed and cooked without the use of a candy thermometer. (Notice to beginners—by all means, obtain a candy thermometer). I also remember exhausting the neighborhood's supply of Karo and finding that Fuller candy can be made just as satisfactorily without Karo and though the finished product is a trifle more hard, it is just as acceptable to the bees. As the cream of tartar inverts this mixture, the product is easily assimilated by the bees and is a great stimulant to brood rearing.

During the cold snowy days of February I was making the rounds, opening colonies and if their honey supply was not ample, I would invert one of the candied escape boards over the frames and return the cover. Colonies having plenty of honey that happened to get Fuller candy seemed to work at the candy leisurely and went on with their normal wintering, but colonies that were in need took the candy with gusto and began brood rearing much earlier than their sisters with the ample supply of honey. This necessitated constant checking and the addition of more Fuller candy every ten days, but it was worth it.



The bees work it readily and do their own liquefying.

Colonies were populous and able to take advantage of the early spring flow. After that in sections where I found a dearth I fed dry sugar, sprinkling from three to five pounds upon the escape boards letting the bees do the liquefying and inverting (sort of getting even for the long hours of making the Fuller candy).

Winter loss and spring mortality, (always the worse,) were practically nil that winter and in some cases this application of Fuller candy even successfully wintered queenless colonies, (since it was too cold in February to check for queen rightness, some of these "duds" were fed and brought through the winter).

Even though the results were good it was too much work and as I waded through the snow and carried sticky inner covers through snow banks, I envied the beekeeper who was sitting home in front of the fireplace catching up on his back-number bee journals.

But that winter experience plus the Cale words taught me a lesson, a lesson I haven't forgotten, and so this year I have a rigid set of rules that has reduced my total colonies 25 per cent but it has placed my wintering upon a safer plane and given me a sense of colonies well provided for.

September 1st is the beginning of winter as far as our outfit is concerned. Colonies are examined and while inspecting for disease a wary eye is watching the brood pattern and the general colony condition. Colonies with less than five frames of brood are united with a stronger one.

If the queen is not found, the "dud" is placed below a good colony, letting the good queen and her colony on top take care of the undesirable queen below. No paper is used, just a thorough smoking of both sections, and uniting upon the stand of the better colony. The only exception to this five frames of brood standard is when the colony is jammed with honey and the queen's normal activity has been curtailed. Here we place a body of empty combs below the brood and allow the queen to be crowded downward where she has a chance to lay if she is a satisfactory queen.

In uniting we have given up the idea of uniting two weak colonies to make a strong colony. It seems just as reliable as two wrongs making a right. After you get done you still have only a weak colony that is bound to die in the winter or be superseded in the spring. The former is better than the latter because if supersedure does take place, you are propagating poor stock, something that I am too much inclined to preach about, and against.

Some years ago we tried uniting as high as six and seven weak colonies upon one stand. The system was good. We placed a queen and her brood in one side of the hive, a solid frame of honey and then another queen and her brood in each body, in the next story we did the same until we had six or seven queens and their bees upon one stand. The results looked good since all colonies went into winter strong and were able to gather sufficient fall honey, but they died out during the winter or were "dwindlers" in the spring, being individual weak sisters rather than several weak colonies.

When recommending this uniting with this system of placing the better queen in the upper hive body and the one to be killed in the lower, I am sometimes confronted with a gentleman who claims that he had the queens marked and the lower one was accepted in preference to the other. To this gentleman I always say, and I do not hedge, that I sincerely believe that the bees knew better than he which was the best—perhaps the one that we think the best may be faulty to the bees, so **let them decide**.

After our September inspection we try to anticipate the honey flow, never oversuppling because we are more interested in having the bees live through the winter than extracting fall honey. We practice bottom (Please turn to page 484)

Moisture Control in Wrapped Hives

By John Norton



I began experimenting with wrapped hives in 1903. Finding moisture a problem, I was encouraged when I learned that moisture gives most trouble at the coldest part of hive. I then began wrapping, very heavy at top, medium at sides, light at bottom. The bees live near the top. Excess moisture goes to the bottom. I have tried top and bottom entrances separately and combined. I use bottom entrance only, using reducer made of lath or similar material with slot cut to permit free passage of bees, and not high enough to permit mice to enter. Mice can cause a lot of trouble in cold weather. Slots can be cut in center or low side. If center slot is used, cut small notch at end of reducer for moisture escape.

I like heavy blue plasterboard paper best for wrapping. In cold weather it does not break as easy as felt or tar paper and it can be reused a few times if tied with twine. Small holes can easily be patched with roofing cement. It does not appear to be waterproof, but it does a fine job. In the past two years I have not been able to purchase this paper, so I did next best, using light felt for cover.

For insulation I like oak leaves best, although other material can be used. I begin with paper at bottom. (No leaves). About 2 to 3 inches of

leaves at sides and 5 or 6 inches at top.

I use small wood strip (with screw) just above hive entrance to prevent leaves from going through.

I cut all paper same size regardless of hive variations, so that it can be interchanged. For 10 frame hive I cut top strip 42 inches, bottom 42 inches, sides 8½ feet, using 36 inch paper.

Each hive is wrapped separately, as individual hives are easier to wrap. I use binder twine for ties although other twine can be used.

This method of wrapping is not a 100 per cent moisture control, but is the best I have found.

Some seasons I have no trouble at all, and sometimes I find a few bad combs in the spring, 5 or 6 in 45 or 50 colonies.

Condition of colonies to be wrapped is of much importance. Colonies with a reasonable number of young bees in the fall are best. I go through winter after winter without losing a single colony.

Bees properly wrapped consume very little stores as the 57 degree temperature can easily be maintained.

These wrapped colonies start brood rearing earlier than unprotected ones, as it is easy to maintain the 94 degree brood-rearing temperature. Brood

rearing is a very heavy drain on stores. Hives can be lifted from time to time in the spring to detect those in need of stores.

The winter reducer can be removed; a boardman feeder can be placed at one side. Leave small entrance at opposite side. A piece of wet cloth placed around jar at feeder will help prevent robbing. Don't unwrap too early.

Iowa.

Honey Granulation

According to W. A. Stephen honey exposed to sunlight favors coarse grained granulation. Honey we stored for home use this year was placed in a cupboard in the wall next to the fireplace in the kitchen. Jars were against the wall nearest the fire, out of direct light even when the cupboard doors are open.

In the last three jars used, which were those nearest the wall and so nearest the fire, I noticed that the honey, a mixture of heather and flower, was granulated with a very fine texture, somewhat like fudge, had partially liquefied at the side nearest the heat. This reliquefying affected about half the jar so in one half there is fine texture granulation and in the other partially liquefied are very coarse granules. This was true with all three jars.

So it appears that not only does exposure to sunlight favor coarse granulation of honey but exposure to any source of heat has a like effect. On previous occasions after having reliquefied honey in jars of a similar mixture when granulation set in again the coarse granules were present. This peculiarity may be due to the way in which heather honey when crushed out of the combs holds quantities of small air bubbles, more so than any other honey that I know of. We do not know the reason for it. There is still a lot to learn.

—F. W. Reeks, England.

The Case of the Little Beekeeper

By Geo. W. Bohne

THE little beekeeper is evidently a fool. He is blamed for all the ills from which our industry suffers, and he is rapidly losing the last shreds of control over his own beeyard. That he submits to this imposition is proof that our first sentence is **ALMOST TRUE.**

It might be well to examine the record and see if we can find bureaucratic mistakes to balance the charges made against the small operators. The most oft repeated charge is that the small man spreads disease. If we think a minute we should realize that the little fellow stays home while the BIG commercial operator roams from state to state carrying danger wherever he goes.

What about restrictive provisions? Well, they work--only--with **HONEST** operators. We cite an instance which took place not many years ago when an Ohio beekeeper moved infected bees under cover of a "certificate" issued to cover **A DIFFERENT YARD.** This is no reflection on the Inspector but the control does not appear to have been carried far enough to protect clean territory. This is not an isolated case as we have collected a number of well authenticated happenings of the same kind.

The demand that the small operator submit to complete supervision is so persistent that it grows disgusting--especially when we see one self-appointed expert criticize the possible advanced methods of other investigators who might be better qualified to give advice.

We will back Childers, Haseman and Cale against Stricker and will "toss an orchid" to Bob Foster for being the first to discard the old burning regulation in favor of "sulfa control" which will be more acceptable and **CANNOT BE LESS EFFECTIVE.**

A whole generation of burning has had very little effect on the percentage of disease prevailing in most localities.

No state has ever inspected all of its bees in any one year, and most

states have never covered their entire territory over the whole time during which inspection has been in force. As the data on disease are predicated on these incomplete surveys we must conclude that the reports do not carry a true picture of the real situation.

But the real question boils down to the right which the little man has to carry on experimental work in his own yard and on his own bees. Haseman and Cale both seem to agree that a colony with an advanced case of **AFB IS NOT WORTH SAVING.**

I found this out by myself and I make no claim to special wisdom. I also found that treating heavily infected combs was unprofitable as it took the colony longer to get into productive shape—and all that we might gain was the saving of the old comb. I also found that this old comb, when placed in my solar wax extractor, often produced enough wax to pay for a new sheet of foundation which usually made a better comb than the one which we discarded.

Sulfa failures will probably be as easy to locate as were burning wastes. One point in favor of sulfa is that many treated colonies were able to produce a profitable crop after treatment—but a burned hive is **ALWAYS A TOTAL LOSS.** Just why inspection officials reject an advanced practice in favor of the old methods would be a \$64.00 question. Why continue to speak of "eradication" when our ablest medical practitioners have never accomplished more than a satisfactory control?

It is only reasonable to expect progress from trained investigation and methods which substitute salvage for destruction as a step in the right direction, especially when the destructive measures have failed to accomplish the expected cure. Some sulfa failures are inevitable, but if we save only 50 per cent of the colonies formerly burned we will be gainers to that extent.

In conclusion we would have you consider that many tons of honey are also saved. Dangerous? I do not

think so if the honey comes from supers, especially when we use excluders. At the Southern Conference Meeting held in St. Petersburg some years ago, Jas. I. Hambleton stated that his experiments had shown that "commercial honey was safe." I fought him vigorously but on arriving home I made about 30 2-frame nucs, to each of which I gave several frames of honey from supers taken from an infected hive so far gone that it was slated for destruction. When NONE of these nucs developed disease I decided that Jim was right and I have no cause to change my opinion over the ensuing years.

Sulfa may not be the final answer to our problem—I have had successful results through the use of other agents—but until we discover something better, let us give Mr. Childers and Dr. Hasemann full credit—and thanks—for having lifted an unpopular and unsuccessful control measure from our shoulders.

Louisiana.

Recovery From Robbing

In the fall of 1944 I prepared for winter, two colonies for a friend. On April 12 I was at his place and upon inquiring about the bees was told there had been much flying the two preceding days. A glance at the entrance of one colony showed it had been robbed out, presumably by the other. Opening the hive, I found the honey gone and only the queen and a handful of bees left. So I placed the brood chamber containing the queen and the few bees above the other colony with two shallow supers, excluders above and below them, between them. There was only one entrance, at the bottom. On June 8th the hive was full of bees with full brood chambers top and bottom. I set the top colony on its former stand and my friend still has two colonies.

Ivan Whiting, Illinois.

Varmints

By George H. Rea

SKUNKS and opossums rank among the most destructive enemies of bees. Skunks alone destroy thousands of dollars' worth of bees, annually, while in some sections of the country opossums are not far behind in their depredation in apiaries. In some states the skunk is listed among the fur-bearing animals and is protected by law excepting in a restricted trapping season. Protection, during most of the year, has encouraged their increase until they have become a serious menace to beekeeping.

Beekeepers can hardly be blamed for taking matters of control into their own hands in an effort to save the bees. The skunk is probably the world's champion producer and distributor of pungent and potent perfume but its reputation in that respect is hardly to its credit. It is a destructive predator and takes for food almost any small animal or bird life found as well as some kinds of vegetables. There is plenty of evidence that skunks, destroy eggs and young of ground nesting song birds as well as important game birds such as grouse, quail and pheasant. It does not hesitate to steal hen eggs and to eat unprotected chickens. Skunk damage in sweet corn fields is often heavy and it has been known to eat cantaloupes. When these vices are compared to the good that the skunk does in consuming white grubs, cutworms, crickets and grasshoppers and the value of its pelts, the balance is surely against it.

While eating bees and distributing the colonies in the summer is bad enough, depredation of skunks in the apiary in the winter, when bees should not be disturbed, is much more destructive. Small apiaries are sometimes entirely destroyed by skunks during the winter. By scratching on the hives or even tunneling under them the bees are so disturbed that they consume food heavily and succumb to dysentery.

It is the opinion of some that the skunk is an example of over protection of wild life to a point where more harm than good results. Beekeepers might do well to ask the removal of all restriction against destroying this animal within certain limits near apiaries. Here, a word



of caution to the wise is in order. A representative of the Game Commission Office called on the writer to learn what he could about beekeepers putting out poison for skunks. Such reports could not be truthfully denied but so many facts were given him about the destructive habits of the skunk that no more was heard from that office. It is well, however, for beekeepers to remember that using poison bait is a serious offense and may lead to plenty of trouble if a neighbor's dog or cat should find the poison. The orderly way is to arrange with the local game warden to dispose of the skunks. Game wardens are usually cooperative and it is part of their work to help prevent the destruction of animal life and crops by wild animals. Another and more expensive way, especially practical for small apiaries, is to fence the skunks out. This may be done by using common poultry netting about two feet high. Heavier hog fencing may be used if the mesh is small enough to exclude the skunks. It is necessary to set the fence into the ground three or four inches. If a skunk can put its front foot under the fence it will readily dig away enough soil so that it can enter the apiary. But if a margin of the fence is under the ground, usually no attempt is made to go under and it cannot climb over. Where skunks are plentiful they have been known to beat a path all the way around the outside of the fence in an effort to find a place to enter.

In an apiary protected by such a fence a branch fell from a tree

and formed a bridge from the ground outside to the top of the low fence. Several skunks found their way up this branch and into the apiary, but because the bridge was a one-way affair they could not return and were killed by the beekeeper.

Just about all that has been said about the destructive habits of the skunk may be said of the opossum. The latter is not in the perfumery business, however, and has the ability to climb over fences and is much more wary of a trap. It is especially fond of eggs and chicken, some vegetables and fruits, and is closely associated with persimmons and sweet 'taters in some areas. Some folks really like to eat them but as for that a bunch of men, on wager, roasted and ate a skunk and reported that it was good.

Our first experience with the opossum as an enemy of bees was last summer. Skunks had been working on the bees, but one day diggings were found about the hives that were different than that of skunks and opossum tracks were found in a dry loose earth. A mink trap, without bait was set and the next morning the trap was found, sprung and thrown several feet away from the hive. This performance was repeated several days. We decided that the opossum is more expert in handling a trap than is the skunk that usually steps right into a trap without as much as a look. Three traps were then set in a tri-angle of about four feet with first trap at the entrance to the hive and at the apex of the triangle. Evidently, again in the act of throwing the trap by the hive out of his way, the opossum stepped into one of the traps in his rear and thus he was found the next morning. He was a large, fat one and perhaps had the makings of a juicy roast but we preferred to pass the temptation by. There seem to be no restrictions on destroying the opossum at any time.

Pennsylvania.

B. G. Goodrich Catalog

One of these has just reached us, and it contains so many things of interest to beekeepers that we are glad to summarize it—hose and parts for paint sprays, garden rubber clothing for weather protection, rubber footwear, truck and car tar-paulins, rubber putty, and also a section of advice for time-saving ideas for home and farm.

The Compulsory Use of A Bee Repellent

By G. F. Pearcey

THE British Columbia Fruit Growers Association, made beekeeping history in passing a resolution asking that the use of a bee repellent in all fruit sprays be made compulsory.

When fruit growers themselves call for enactment of such a measure it may be taken as indication of their appreciation of the value of the honeybee as a factor in securing maximum yields of fruit. The territory under jurisdiction of the B.C.F.G.A. stretches from Osoyoos on the B.C.-U.S. Border north over two hundred miles to Kamloops. In the area there are over 34,000 acres planted to orchard fruits and the members of registered growers concerned is roughly 3,400.

As this whole area is tightly organized under the B.C. Natural Products Marketing Act, sales of all fruits produced are under 100% control of B.C. Tree Fruits Ltd., the grower controlled sales agency. Not only are sales controlled but growing methods also are standardized and under supervision. Such an organization offers a good basis for co-operation.

Beekeepers in the area have suffered serious losses from spray poisoning in past years and bee population in portions of the district had been completely wiped out while other beemen were carrying on under extremely discouraging conditions.

In an effort to ameliorate this condition the Provincial Department of Agriculture officials at Vernon have been carrying on experiments during the past two or three years to discover a satisfactory material that could be incorporated with the lead arsenate sprays as a bee repellent. After lengthy tests with both creosote and crude carbolic acid the latter was decided upon as being both economical and efficient. Amount used was two fluid ounces to each hundred gallons of spray material.

The next step was to secure its general adoption in all orchards and the passing of the above resolution has been in part the result of a

'boring from within' by beemen who are also fruit growers and members of the various local branches of the B.C.F.G. Association.

Also a very definite contributing factor has been the fact that crops of apples and pears, and some stone fruits, are not what they used to be, and depletion of the honeybee population is recognized as largely responsible. More enquiries are being received for bees for rent for orchard pollination than for some years past.

It must be said that there are some objections to the carbolic acid as a repellent and this is not yet regarded as the final solution to the problem.

The Canadian Beekeepers Council

is pressing upon the Dominion Department of Agriculture the urgent need for scientific research into the combined problem of losses of bees from spray poisons with search for a satisfactory repellent and also conclusive studies to determine the value of the honeybee as a pollinating agent in the production of fruits and legumes.

British Columbia.

DDT IN UTAH

According to Arthur G. Pledger, vice-president of the Utah Honey Producers' Association, honey production in Utah this year will be about 80 per cent of the average production for the past four or five years, as a result of the use of DDT in alfalfa fields to kill the Lygas bug. Discovery of these losses came too late this year for effective cooperation or solution. Farmers who use the insecticide will be asked to use proper application programs in the future.

—Glen Perrins, Utah.

If Winter Comes, Then Spring Must Follow

By Charles A. Pinkham

IN what condition will the spring find our bees? Let's all start now to try and have all our colonies winter 100%. Our success or failure next season depends to a large extent upon our efforts and methods used now in preparing our bees for the long cold weather to come. If we are really going to winter our bees none of the following things can be put off too long:

Protecting each hive entrance from mice and reducing the size of all entrances.

Uniting all disease free colonies that appear weak.

Have all colonies located during the winter and early spring months at some spot that is protected from the prevailing winds.

Give all colonies a food chamber (second hive body) that contains plenty of stores, both honey and pollen.

Make sure that every colony is headed with a good queen that is not too old.

Remember that one should not over do the packing or insulating of the hives. By using too much insulating material one is only making the hive into an ice house.

In recent years many changes have been made in preparing bees for winter. If you haven't been having the success you feel you should with your wintering, why not review the methods now advocated by many of the large Beekeepers.

Successful wintering means honey saved plus strong colonies ready to start brood rearing in early Spring. Without good wintering your chances for a successful 1947 season will be many times less. Above all, don't remove the winter protection too soon.

Maine.

THE EDITOR'S JOB

WHENEVER a controversial subject is brought into the pages of this magazine there is sure to be criticism of the editor. Some who disagree violently with the writer of an article take occasion to express themselves in no uncertain terms. Too often they overlook the fact that the editor may also disagree but makes use of the article in question in order that both sides of a controversy can be heard.

The limits of space must of necessity limit the extent of discussion of any subject. Every month the editor is faced with the necessity of deciding what articles can appear and which must be left out for lack of room. He does his best to give his readers full information concerning every new development. With several articles available on the same subject, he uses the one which seems to tell the most complete story or explain the details most clearly. He endeavors to divide the available space so as to give each subject its proper attention in consideration of its relative importance.

Much attention has recently been given to sulfa because it is a new development and offers much promise in the control of disease. All evidence points to good results where properly used. The editor has been criticized on the one hand for recommending its use and on the other for permitting any thing to be said against it. An honest effort is always made to give the facts as they appear in the light of present knowledge.

WHAT PRICE HONEY?

THE big question now before the beekeeper is —What is a fair price for honey? It is important that prices be kept in line with those of other commodities. At the same time the beekeeper is entitled to sell his product at a figure comparable to that he must pay for the things he buys.

The public should be reminded that for fifty years honey and butter sold at about the same price per pound. Since the invention of the extractor honey prices have steadily declined because of lower production costs and larger output.

Jellies now in the market are selling at substantially higher prices than honey brings. Honey is a high quality product in the class with butter

and jelly and not to be compared with such manufactured articles as corn syrup or cane sugar.

It will be much to the advantage of the beekeeper to deal fairly with his customer and keep him supplied with honey at a reasonable price. Such action now will insure a market later when prices again fall to disastrously low levels. Since every action is followed by a corresponding reaction we must not forget that a time is coming when the buyer can set the price. Moderate prices now will insure a demand which will sustain living prices in the lean years that lie ahead.

It is important that established distributors be kept supplied with honey as they are able to reach the consumer through the regular channels of trade.

DECLINE OF SWEET CLOVER

WHEN a nearby farmer plowed under the last field of sweet clover within flying range of our experimental apiary at Pellett Gardens, Atlantic, Iowa, it proved a bad break for us. This year's crop fell to a very low point. Reports have come to us from beekeepers in many places telling of similar experience. That this is no mere local condition is apparent from the letters coming from such widely placed neighborhoods as Saskatchewan and Alabama. Beemen from Manitoba to Colorado and Kentucky have made similar complaint.

In our neighborhood the reason was that the farmers of the community preferred red clover. In others, reasons given vary from injury by the clover weevil or root rot to the exhaustion of the lime content of the soil. In some states the extension services no longer advises sweet clover in the farm rotation but recommends other plants.

Fortunately there is some extensive research work under way in several states looking to the improvement of sweet clover. This varies from search for disease resistance to selection for better forage and should be helpful in restoring confidence in the plant.

Farmers object to sweet clover because it is too coarse for hay and also because it leaves the soil very loose. It does provide plenty of nitrogen which is helpful to crops that follow. The beekeeper profits substantially from the use of this crop since it yields larger average returns in honey than any other commonly grown in the West.

SECURITY IN DIVERSIFICATION

THE American farmer has generally abandoned his former habit of producing at home the things to meet his needs. Now he usually is content with some specialty which he is able to turn out in large volume. In times of prosperity the larger output results in larger income and he is able to supply his needs from the market. In turn he loses the security which diversification brings and when prices fall he feels the pinch much more keenly.

In Japan we are told it is a common axiom that "what the farmer needs he should produce," but the low standard of living of the Japanese farmer offers little inducement to follow his lead. There are in this country many who have found a middle ground. The attention of the family is occupied with a variety of small enterprises the output of which is for home consumption. In addition some one specialty provides the greater part of the family income and insures a measure of prosperity. Many beekeepers are following this plan. They raise their own gardens, keep their own hens, pigs and cows and supply the family table largely with home products. In times of adversity they are far more secure. They produce enough honey to provide a good income in favorable times and enough of other things to insure reasonable comfort when adversity arrives.

HONEY STANDARDS

MORE attention should be given to establishing honey grades with labels which will enable the housewife to know when she buys the kind of honey she wants. The great variation in honey from different plants lead to much confusion on the part of consumers who are not familiar with such differences. One often hears the complaint that honey must be adulterated because it is so different from the kind with which the buyer is familiar. Too often it happens that one who is accustomed to honey from a particular source gets something very different and dislikes it to such an extent that she buys no more honey for an indefinite time.

Most honey packers use care to put up a uniform quality under a special label. This en-

courages the purchaser to ask for the same brand when reordering.

The "Better Honey Committee" of the National Federation has a very important job and at the same time a very difficult one. Because of the many sources from which honey comes and the large number of small producers who market honey in small quantity direct to the consumer, it is hard to provide rules to meet all cases.

WATCH THE STRAIN

EVERY beekeeper has observed that some colonies of bees are far more active than others. It is a common occurrence for one colony in an apiary to produce far more honey than others in the same area. That some strains of bees average much better than other strains is also well known. How great this difference may be is well illustrated by a story in a recent issue of Bee Craft, an English bee magazine. It is said that in one district where the beekeepers reported uniformly poor crops that a change in the strain of bees through requeening resulted in the harvest of crops equal to the average of other areas. There are strains of bees whose production is low as is the case with cows and hens. The best honey gathering strain is of first importance to every beeman.

PROVIDE AMPLE STORES

IT is a great mistake to take too large a portion of the honey when removing surplus in late summer. When demand is heavy and price is high there is a temptation to reduce winter stores to a minimum. It is this shortsighted practice which results in the loss of thousands of colonies every winter. Other thousands come through so weak as to be in poor condition to gather a crop.

The best investment that a beekeeper can make is an ample supply of winter stores left with the bees. With plenty of honey on the hive there is a saving of labor in feeding, but the greatest gain comes from early breeding which insures large clusters of young bees for the early harvest. Honey to the limit of the needs of the colony, left on the hives, is worth more to the beekeeper than money in the bank.



KENNETH HAWKINS PASSES AWAY

We regret to advise our readers of the death of Kenneth Hawkins at Watertown, Wis., on Oct. 9. Mr. Hawkins was born Feb. 8, 1890 at Plainfield, Ill. Early in his career he became interested in bees and quite early in the years when the American Bee Journal first came to Hamilton, he was advertising his "quality hill" queens.

While he spent considerable time in newspaper and magazine work, once being city editor of the Pensacola Florida Times, he never lost his interest in beekeeping and finally in 1919 went to work for the G. B. Lewis Company as their general sales manager, in charge of sales promotion and advertising.

Together with E. W. Atkins, he edited a book entitled "How to Succeed With Bees" which has been through a number of editions and still is widely distributed. He also wrote the book, "Beekeeping in the South" in 1924 and is the author of a series of "How" booklets, as well as numerous other material on beekeeping.

Mr. Hawkins was a man who could get things done and who did them whether it was for his family, his firm or for the beekeeping industry, even by interceding at Washington which he very often did.

He leaves to mourn him, his wife, Mrs. Ella Hawkins, to whom he was married in 1922. There were three children, Mrs. K. Rhodes of Milwaukee, Edgar Hawkins of Los Angeles, California and Paul Hawkins now at home enrolled in the University of Wisconsin. Also four grandchildren.

Over the years our organization has

had many opportunities for contact with Mr. Hawkins and the firm he represented; and had learned to love him. We know that he will be missed both by the beekeeping industry and by his firm as well as by his family to

whom our sympathy is extended.

Mr. Hawkins' health had not been good for a number of years and he had been forced to drop many of his affiliations with the school, lodge and other organizations.

— Men of Today —

ROBERT E. FOSTER

Robert Enoch Foster admits to having been in the "dog-house" once and here is how it came about. Working with a beekeeper in cleaning up AFB, the beekeeper said the work should be done at night or not at all. Attempting to transfer the bees after dark resulted in many bees inside Bob's clothing and when he had done the night's job, he was so tired he climbed into bed without taking off all his clothes. Right after passing into sleep he was awakened by his wife's screams, as some of the bees Bob had taken to bed with him decided she was better to sting than he!

Born in Wild Rose, Wisconsin, a trout fishing spot even today, Foster's first real job with bees was working for a Mr. Arnce near Bruce. This man used no supers and Bob spent his time during extracting in lifting out combs, taking them to the extractor and returning them to the hives. Bob says when they got through they had quite a bit of honey, the bees little to winter on and had accumulated a peck of brood at a time in the strainer! Still they tell us the "good old days" were best.

First working with bees in 1897, Foster remembers an upstairs room in his father's house where the floor was covered with dead bees in spring. In 1907 he took his first colony out of the walls of a house at Olathe, Colorado. He was appointed county bee inspector by the county judge of Montrose, Colorado in 1910, moved to Rifle, Colorado in 1914 and worked 500 colonies for section comb honey. The next year he worked for Wesley Foster at Boulder who was then state inspector and Bob continued this until 1922.

In March of 1922 he moved to Florida and worked 450 colonies until appointed state apiary inspector of Florida in March 1925, which job he



has held ever since. Widely known among honey producers Bob's experience and standing make many seek his advice on disease and producing problems.

Married to Anna E. Warren at Eau Claire, Wisconsin, September 20, 1905, he has seven grandchildren, one daughter and three sons. One of the latter, Gerald, had a rating of A.M.M. 1/c in the last war. Among Foster publications are: "Honey Bees" a Florida State Plant Board bulletin in 1928 and "Studies on Bacteria Associated with Parafooulbrood" with Burnside in 1935. He prefers the 8-frame hive and is interested in pollination and disease control. Also he writes: "Although 66 years old, I still love to fish, hunt and go to baseball games." No doubt that's Bob's raucous voice you will hear at Gainesville if you are one of those lucky enough to watch winter big league ball games in Florida.

Kenneth Hawkins,
Wisconsin.

HOW TO DO IT



Natural Windbreak

Picture shows my colonies arranged for a natural windbreak for wintering. By placing them on a south slope, surrounded on the north and west by a clump of trees, I get almost perfect windbreak. Pick a southward slope when you select an apiary site, with shrubbery and trees for protection on the north and west. You will get excellent results.

W. P. Kinard, Mississippi.

INTRODUCING QUEENS

Most discussions on good queens center on raising them properly, but what about their proper introduction? Most queens are released from their cage in about twenty-four to thirty-six hours and they are then at the mercy of bees which are queenless, but usually with queen cells started. Such bees are sure of themselves before the queen is released.

If, under these conditions, she is introduced without being killed, she will probably have a wing pulled out of place or be crippled in some way not easy to detect. This is the result of her being balled. I have known queens to be balled several hours and still live and seemingly perform normally.

Often too, the beekeeper turns the introducing screen down over combs, especially in warm weather, the screen and end of the cage are balled

tightly with bees, and the queen seems to suffer from too much heat and poor ventilation, though they often revive and start laying.

The question arises if the introduction problem is not the cause of some queen failures.

C. B. Eppling, Virginia.

GOOD HIVE STANDS

Burned out fire pots from a furnace make excellent stands. I have used them for several years. Old automobile wheel rims are also good. They are rot proof, easy to handle and allow plenty of air under the hive. An alighting board of any sort is advisable. I prefer heavy roofing, either roll or shingle. It can be tacked on the boards.

H. A. Gluesenkamp, Indiana.



Grapefruit Boxes For Packing

I found it was easier to pack my bees for winter by using discarded slatted grapefruit boxes from the grocery store where they can usually be obtained for the asking or for very little money. I find the slatted crate boxes stand up better than wire and they also offer more protection from wind. They can be discarded in the spring or saved and they are almost always available.

Vern Bond, Kansas.

ONION JUICE FOR STINGS

Grandfather, although not a bee-keeper, had large orchards and sometimes got stung by bees in the early spring in the fruitbloom. He always used onion juice on the place where the bee had stung after the stinger was removed. He said that the onion juice helped to prevent swelling and alleviate some of the pain. My father always used the same remedy and I have tried it a few times, but since by now I have developed a partial immunity, I do not bother with the treatment any more for myself. Perhaps someone else might like to try this old-fashioned remedy.

Lloyd D. Klopfenstein,
North Dakota.

LAYING WORKERS

To eliminate laying worker colonies, place an inner cover over the colony with an excluder zinc on both sides of the center hole and place two combs of unsealed brood in the hive. Set a weak colony of bees on top with entrance at the rear. In about ten days, remove the inner cover. I have never had this fail. In many cases, you will get a young queen below and the upper one may be disposed of if you wish.

Harry T. Starnes,
Indiana.

CHIN STRAP FOR WIRE VEIL

The wire veil on a hat resists snags and stands hard wear. I like it better than any other. Often it falls out of place when one bends over, but to overcome this difficulty, attach a chin strap of the correct length to pass under the chin when the hat is on, attaching the ends of the strap midways on each side of the brim under the edge of the crown. Then when the veil is put on and chin strap slid under the chin, the veil stays in proper position and there is no annoyance from its getting out of place.

W. P. Kinard, Mississippi.

CHLOROFORM FOR BEES

I use chloroform to good advantage. I keep a bottle with me. I have some colonies that are so cross you cannot pass them without being well protected and when I work with these colonies I put some chloroform on cotton in the bottom of my smoker. A few puffs does the trick. When I am through working the colonies they are soon back flying as usual.

W. O. York, Georgia.

For the Ladies

It all started in 1620 when the Pilgrim Fathers landed on Plymouth Rock, and, when their first harvest was in, initiated the celebration of the Thanksgiving Feast. After 326 years, Americans, by holding this yearly holiday, are still demonstrating their thankfulness for having lived in America.

Every fall harvest is certain to include pumpkins, and of course, pumpkin pie is a traditional Thanksgiving dessert. To make your Thanksgiving meal end more gloriously than ever, serve this Pumpkin Chiffon Pie. It is a truly elegant dessert worthy of being served on this great occasion.

Pumpkin Chiffon Pie

1 tablespoon gelatin	1/2 teaspoon ginger
1/4 cup cold water	1 teaspoon cinnamon
1 1/4 cups pumpkin	1/2 teaspoon nutmeg
1/2 cup honey	1/4 teaspoon salt
3 eggs, separated	1/2 cup sugar
1/2 cup milk	

Soak gelatin in water. To the pumpkin add honey, egg yolks beaten, milk, spices, and salt. Beat well. Cook over boiling water until mixture thickens. Add softened gelatin, stir well, chill until partially set. Add egg whites beaten with sugar to make a stiff meringue. Pour into baked pastry shell. Chill. Serve with a spoonful of honey meringue or honey-sweetened whipped cream.

* * * *

For the centerpiece on your Thanksgiving dinner table, you might very appropriately use an arrangement of highly polished fruit. Choose perfectly formed apples, pears, plums, grapes, or any other small fruits you may have, and using a bright pottery bowl or a copper, brass, or hammered silver tray for a base, arrange the fruit in a pleasing pattern. If you like to eat by candlelight, choose pottery, metal, or wooden holders rather than crystal or silver.

* * * *

To be sure of a brown pie crust, rub a little sweet cream gently over crust just before baking.

* * * *

Now that school days are well under way again, mothers will probably find a new crop of ink spots on the children's clothes. If the ink has landed on a white blouse or shirt, it can be removed by soaking the garment in pure ammonia for a few minutes, then rinsing in cold water.

This procedure is not recommended for colored fabrics, however.

* * * *

Cracks in linoleum floor coverings are notorious dirt catchers, and once the dirt is caught it is difficult to remove. Fill those breaks by melting sealing wax, rubbing it into the break, then smoothing it out. The floor will be much easier to clean after this treatment.

* * * *

There will soon be a new product to grace your breakfast table. It is a cereal made of dehydrated banana powder, corn and wheat flours. It will be marketed in the form of tiny bananas and is ready-to-eat type of cereal.

* * * *

Milk solids are soon to be sold in dried bar form like a cake of soap. All you need to do is add water and the result will be either milk or cream depending on the amount of water used.

* * * *

If your cakes never seem to turn out like the pictures in the recipe book, if they come out of the oven with a cracked hump, coarse uneven texture, dry and compact, or looking like a deflated pancake, don't despair and blame it on the ingredients. Part of the secret of how to make good cake lies in the proper technique in putting it together.

If your recipe calls for cake flour and you wish to use an all-purpose flour, remember to reduce the amount by two tablespoons per cup. This will help prevent the cracked hump effect. Small volume and close, dry texture in cakes can result from improper mixing. You can beat as vigorously as you wish up until the point where the liquid and flour are added, and the result will be a fine velvety texture. But after this point, mix only enough to blend the materials thoroughly, for over beating will reduce the volume and give a dry, compact cake. Another boon to cake volume is the use of straight-sided cake pans. It has been found that these give a better volume than slant-sided types.

What you want to know

W. J. Baerg, of the University of Arkansas, sends in two questions asked by an Arkansas beekeeper.

What causes apparently normal queens to turn into drone layers—The beekeeper who asks that question probably has his own idea of how a normal queen appears to his eye. The queen which appears normal may not necessarily be normal internally. There is concrete evidence to show that queens in their natural environment mate more than once. Such being the case, many of the queens received from breeders are shipped too soon. Some breeders send a queen as soon as eggs are in evidence; some of them even send queens upon which they have seen the attached organs of the drone—not even waiting for the first evidence of eggs.

We have also seen cases of drone-laying queens which lead us to believe that it might in some way be tied up with a hereditary trait. Certain lines or breeds are capable of reaching a peak of 1200 to 1500 eggs a day and maintain that peak throughout the honeyflow, while others quickly exhaust the supply of sperm in their spermatheca and become drone layers. Perhaps the size of the spermatheca has something to do with this.

Today I requeened colonies each queen from the same mother. Some store heavily on Spanish needle, others very little. Why?

Not having seen the colonies or the queens involved I will again have to give a generalized answer. From what we have seen of colonies and colony conditions I would assume that the trouble in this particular case was with the colony and not the queen. The age of the bees, the number of house bees available to support the queen, the number of nurse bees available to feed the larvae, the number of field bees available to gather nectar—all of this would have an influence upon the amount of nectar gathered. Usually there is considerable variation with each individual colony.

—(G. H. Cale, Jr.)

* * * *

Edward Hassinger, Jr., Greenville, Wisconsin, asks about galvanized iron honey tanks. He says, "We have a honey tank, made of galvanized iron some years ago, and we have used it to clarify honey heated to 140° F. The galvanized part of the tank in-

side with which the honey came in contact seems to have disappeared and the iron is black in color. It would seem that galvanized iron should not be used for honey but the bee supply catalogues all use it. Should we have the tank tinned or is the black iron all right?" Often the advice is given to use lacquer and bake it on. This is difficult but you may be able to find a suitable lacquer to do the job without baking.

It is the contention of Baxter Woodman of the A. G. Woodman Company that honey does not attack the galvanizing on iron except when water is present. However, I think the acid in the honey, particularly when the honey is hot, will in time eat away the galvanizing and leave a coat of black iron. What effect the zinc in the galvanized coating has upon honey we do not know. We do know however, that black iron will discolor honey over long periods of time or in presence of heat in a short time. The effect is probably not serious because beekeepers everywhere use galvanized equipment for extractors and storage tanks. Aluminum or stainless steel would be ideal materials for the construction of these things.

—(Roy Grout)

* * * *

Clyde S. Beebe, a farm boy of sixteen at the Odessa High School, Odessa, New York, has two colonies of bees, started from packages, and he has more equipment and wants to know if he should buy more bees next year since he has received no crop so far, just colonies from the packages, or should he make the bees pay their own way and if we would advise him to use the Modified Dadant hive.

Well, we suggest that you try two Modified Dadant hives next year along with your two 10-frame hives, getting packages for them. This will not be too heavy an investment and you can make your own comparisons and will also give you another year of experience before you launch out more heavily.

Of course you may be too late with your increase to get into the high price honey period. Nevertheless, this will be good experience. If you make a go of it in lower prices, you are bound to succeed. We suggest that you join the New York State Beekeepers' Association; write to Albert T. Carey, Syracuse, New York, secretary. Join your local association, too.

—Answer by F. C. Pellett

Institute News Notes

American Honey Institute, Commercial State Bank Bldg., Madison 3, Wis.

In a new publication, the American Honey Institute plans to include a map of the United States showing the number of contributing and sustaining members in each state during the year 1946. Help your state to make a good showing by sending your membership dues to the American Honey Institute, Madison 3, Wisconsin, soon.

Dues are voluntary. Dues for contributing members are one dollar to fifty dollars per year. Dues for sustaining members at fifty dollars or more per year.

We want your name to appear in the Annual Directory which will be made up January first.

The following article appeared in the August issue of The ATAE News: Dr. D. A. Rochester of the University of Nebraska has the following to say about membership in professional societies:

"I do not recall that I have ever known a person who has stood high in his business or profession who has not actively affiliated himself with organizations, attended meetings, and read magazines concerned with his affairs. These seem to be the ways in which people keep up to date and alert to the new things which are going on. I should dislike to entrust myself or a member of my family to the care of a physician who does not belong to a medical association, who does not read professional journals, nor go to professional meetings. I would equally dislike to think that my child is being taught by a teacher who has not sufficient interest in her work to secure the information and the inspiration which come from such activities."

* * * *

The mail the last few days is filled with requests for "Old Favorite Honey Recipes" from individuals in Idaho. This is because of an article in an Idaho newspaper.

The Institute has a few copies of the original "Old Favorite Honey

Recipes" on hand. You may have 100 copies for \$5 postpaid while they last.

* * * *

On one day the Institute received several hundred requests from individuals in California for A Honey of a Chocolate Cake recipe. It is the members of the American Honey Institute who make it possible for the American Honey Institute to furnish these recipes. To give you an idea of literature that the Institute sends gratis, the following requests came today from Home Economics teachers:

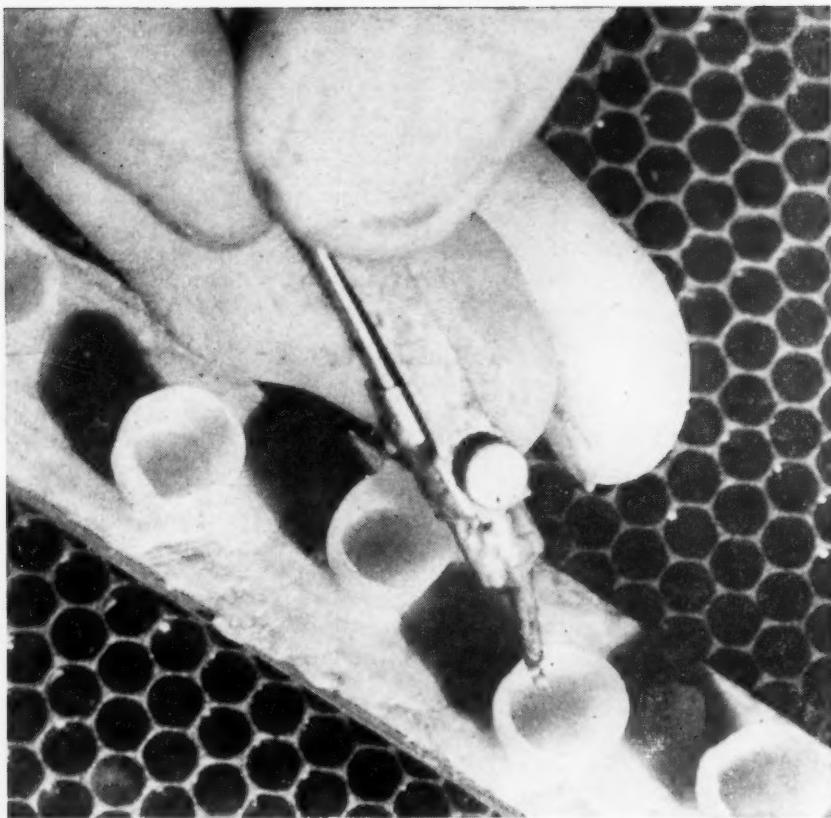
	Honey Booklet	Use Honey for Canning and Preserving	A Honey of a Chocolate Cake
Rockford, Illinois	50	50	
Puerto Rico	50	50	
Cambridge, N. Y.	1		
Honey Grove, Texas	30	30	
Falls Church, Va.	75	75	75
Encampment, Wyo.	16	16	
Tyler, Texas	75	75	75
Sulphur, Okla.	100	100	100
South Africa	30	30	
Ontario, Canada	2	6	
Ypsilanti, Mich.	1	1	
Kuruman, S. A.	1		
Sidney, Mont.	2		
Cleveland, Ohio	1	1	
Columbus, Ohio	10	10	10
Springfield, Ohio	45	45	45
Baldwin, Wisconsin	105	105	
St. Albans, Vt.		1	10
Ambridge, Pa.	25	25	25
Philadelphia, Pa.	1	1	1
Boyertown, Pa.	1	1	1
Elwood, Nebr.	25	25	25
Rock Island, Ill.	30	30	30
Duluth, Minn.	10	10	10
Ann Arbor, Mich.	2		
Portland, Oregon	28	28	28
Hamburg, Iowa	5	5	5
Susquehanna, Pa.	36	36	36
Linden, N. J.	10	10	10
S. Pittsburg, Tenn.	135	135	135
Columbus, Ohio	35	35	35
Dyess, Arkansas	100	100	100
Boykins, Va.	60	60	60
Riffle, W. Va.	10	10	10
Eton College, N. C.	50	50	50
Willoughby, Ohio	25	25	25
Afton, N. Y.	15	15	15
Detroit, Mich.	50	50	50
Sullivan, Ill.	30	30	30
Joppa, Md.	100	100	100
N. Hampton, Pa.	140	149	149
Patterson, N. J.		50	50
Detroit, Mich.		75	75
Valders, Wis.	64	64	64
Minneapolis, Minn.	50	50	50
Monrovia, Calif.	5	5	5
Weatherford, Texas	25	25	25

This is about half of the list.

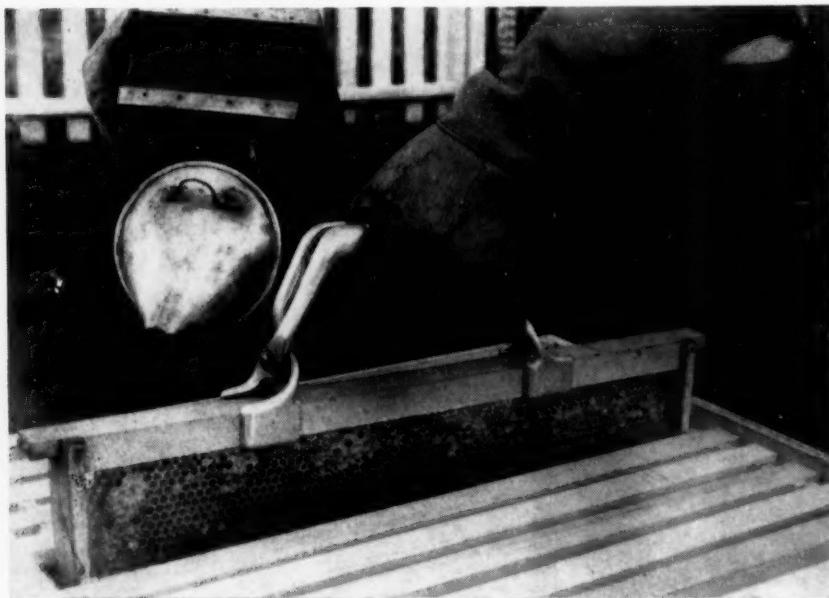
* * * *

We need honey for research. We shall appreciate it if you will send us $\frac{1}{2}$ to 1 pound of extracted honey for this purpose.

Please label as to kind of honey.



The Pierce grafting tool makes larval transferring easy. A metal tongue is mechanically inserted under the tiny larva and, when the larva is in position in the cell cup, it is generally deposited by the same means. It beats the old heavy grafting tool. A feather, cut to shape at the quill end and sanded so it is thin and pliable is also ideal. (Photo by C. S. Engle, Minnesota.)



The McCord frame grip is a light weight, handy instrument, for loosening and removing frames from the hive with one hand. It is made of aluminum alloy. The jaws slip freely between frames and teeth make firm hold. It was exhibited at the California Beekeepers' Convention.

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STATEMENT OF THE OWNERSHIP
MANAGEMENT, CIRCULATION, ETC., RE-
QUIRED BY THE ACTS OF CONGRESS
OF AUGUST 24, 1912 AND MARCH 3,
1933.

Of American Bee Journal, published monthly
at Hamilton, Illinois, October 1, 1946.

STATE OF ILLINOIS, } ss.
County of Hancock, }

Before me, a notary public in and for the state and county aforesaid, personally appeared M. G. Dadant, who, having been duly sworn according to law, deposes and says that he is the business manager of the American Bee Journal and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the name and addresses of the publishers, editors, and business managers are:

Publishers: American Bee Journal, Hamilton, Ill.

Editors: G. H. Cale, Hamilton, Ill., F. C. Pellett, Hamilton, Ill., M. G. Dadant, Hamilton, Ill., J. C. Dadant, Hamilton, Ill., R. A. Grout, Hamilton, Ill.

Business Managers: M. G. Dadant, Hamilton, Ill., J. C. Dadant, Hamilton, Ill.

2. That the owners are:

H. C. Dadant, Hamilton, Ill.

J. C. Dadant, Hamilton, Ill.

V. M. Dadant, Hamilton, Ill.

M. G. Dadant, Hamilton, Ill.

C. S. Dadant, Hamilton, Ill.

R. A. Grout, Hamilton, Ill.

L. C. Dadant, Hamilton, Ill.

R. H. Dadant, Hamilton, Ill.

Louisa G. Saugier, Hamilton, Ill.

3. That the known bondholders, mortgagees and other security holders owning or holding one per cent or more of the total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds or other securities than as so stated by him.

(Signed) M. G. DADANT,
Business Manager American Bee Journal.
Sworn to and subscribed before me this
20th day of September, 1946.

MINNIE S. KING, Notary Public
My commission expires Nov. 17, 1949.

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2-lb. with queen	\$4.00
3-lb. with queen	5.00
4-lb. with queen	6.00
Certificate of inspection, and safe delivery guaranteed.	

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THE GOAT WORLD
P. O. Box 1530, Portland 7, Oregon

A-B-J Ads Bring Results

NOVEMBER, 1946



Frank Finn, Mankato, Minnesota, uses packing, with top entrance, and a woven wire and straw windbreak. He sets posts about ten feet apart, with wire staples on both sides. In center is a six inch board between the wire to staple to and to make a form to fill with straw. The higher the wire the better.



Carl Richardson, Ottawa, Kansas makes a windbreak of old hay, three bales high, on north and west; two bales on the east.



At the Boy Scout Merit Show for the St. Louis Area, in May, Troop 443, Gray Summit, Missouri, put up this beekeeping booth. Good work boys! Scoutmaster is Arthur E. Holekamp. (Photo from Maurice G. Nowlin).

1947 PACKAGES AND QUEENS

We have closed our queen yard for this year and are indeed grateful for the opportunity to have served you. We are sorry that conditions would not allow us to take on many new customers, but we feel that we have done our best. For the 1947 season we offer 4,000 packages of our three banded ITALIANS, bred for honey production, and 4,000 extra queens. We also offer Caucasian queens bred to Italian drones.

Orders received before January 1, 1947 will be at following prices:

2-lb. with queen	\$4.00
3-lb. with queen	5.00
Extra queens	1.25

Booster packages without queen deduct \$1.00. We want to be of service to you.

LOUIS L. COUCH

The Village Beekeeper
PINEVILLE, LOUISIANA

1947 BEES

A few choice shipping dates left for packages. Booked up on queens for April. Have a few left for May shipment. We ship on agreed dates.

WICHT APIARIES
406 Miller Street : Hattiesburg, Miss.

Northern California Package Bees

Queens—Italians Only

2-lb. package with queen	\$4.00
3-lb. package with queen	5.00
Queens, each	1.25

Add 25c per package for orders less than 25 packages.

HOMER E. PARK
PALO CEDRO, Shasta County, CALIF.

Bees and Queens for 1947

2,000 pkgs. for April and May—10,000 extra queens. Book now and be sure of your spring date. 1947 PRICES—Queens \$1.15. 3-lb. pkgs. \$4.85. 2-lb. pkgs. \$3.85. Any number.

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Hardy, hustling honey gathering Italian queens, Northern bred from selected stock. Shipping season May 20-November 20. Untested queens balance season, \$1.00 each.

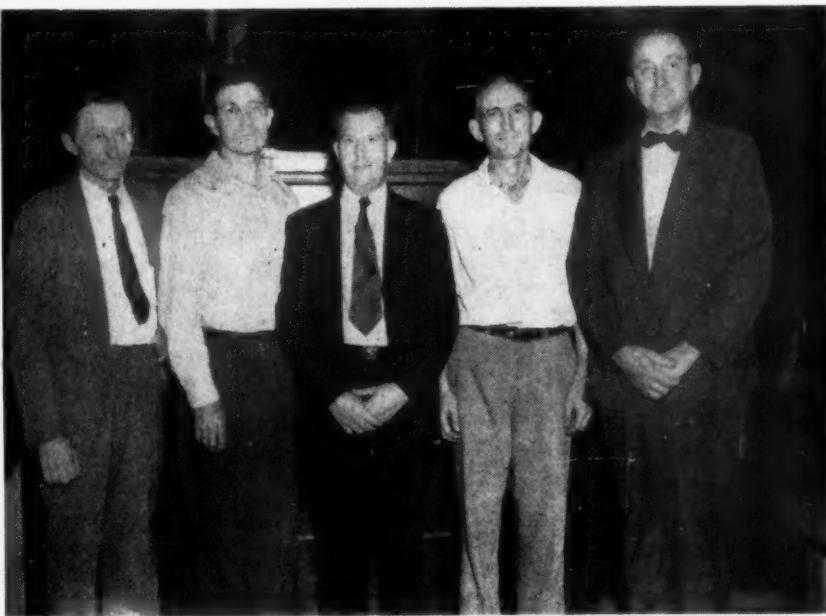
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Meetings and Events



Newly elected officers, St. Louis, St. Louis County (Missouri) Beekeepers' Association—(Left to right) Norman R. Mahoney, retiring president, becoming trustee. Joseph F. Wiley, trustee. Maurice C. Nowlin, president. John McAnnar, trustee. Geo. C. Nagel, secretary-treasurer. Absent, Elmer Veesaert, vice-president.

Illinois Meeting, Springfield, November 8 and 9

The Illinois Association will hold its annual convention in Springfield at the St. Nicholas Hotel, November 8 and 9. The program includes as speakers J. E. Hackleman, Department of Agronomy, University of Illinois on all-over clover situation; Dr. V. G. Milum, Carl E. Killion; representatives of the A. I. Root Co., Dadant and Sons, American Honey Institute, National Federation, Illinois Agricultural Association. Chief Food Inspector Emerick will lead a discourse on honey house and packing house sanitation. All phases of beekeeping will be given consideration, including the use of sulfa for foulbrood, honey marketing and production. For further details write Hoyt Taylor, Secretary, Pleasant Plains, Illinois.

Hoyt Taylor.

guests of Mr. Brayton Eddy, curator of insects. Mr. Eddy has a strong hive of bees on display under a glass enclosure. You must come to this meeting where you can put your nose right up next to the glass and make friends with the bees who gather their honey in the park and store it in an open hive.

Sam Roberts, Sec.

New Rochelle (N. Y.) November 17

The New Rochelle Association will hold its next regular monthly meeting at 2:30 P. M., Sunday, November 17 at the Odd Fellows Hall, 20 Lockwood Ave., New Rochelle. Discussions will be held about the proper way to winter bees and moving pictures will be shown. Refreshments will be served and a social hour will follow.

B. F. Miller, Publicity.

Manitoba Association, Winnipeg, November 11-12

The Manitoba Beekeepers' Association will hold its annual convention at the Marlborough Hotel, Winnipeg, on November 11th and 12th, 1946.

Outside speakers will include: Dr.

Mykola Haydak of Minnesota, Mr. C. B. Gooderham, Dominion Apiarist, and Mr. F. R. Armstrong, Dominion Honey Grading Specialist of Ottawa.

The program also includes panel discussions and other opportunities for dealing with problems of local interest. Beekeepers are invited to exhibit any labor saving devices during the meetings.

E. C. Martin, Sec.-Treas.
Mantoba Beekeepers' Ass'n.

National Federation of Beekeepers' Associations and Southern Bee-keeping States Federation

Tampa, Florida

January 13, 14, 15, 16, 17, 1947

SOUTHERN BEEKEEPING STATES FEDERATION

Monday Night, January 13

7:00 P. M.—Registration — Committee meetings.

Tuesday, January 14
Morning Session

9:00—Invocation.
9:10—Presenting the Keys — Governor Millard Caldwell.

9:30—Southern Conference Salutes the Federation—Lynn M. Dewey.

9:45—All Groups Behind the Federation—Glenn O. Jones.

10:00—Artificial Insemination — New Breeding Program—Dr. Otto Mackensen.

10:30—The Need for Queen Rearing Research (Oral Symposium) Directing: E. C. Bessonet. Responding: W. J. Nolan, Walter T. Kelley, Dr. Mackensen.

11:30—Nutritional Needs of a Package Colony—Dr. Warren Whitcomb.

Afternoon Session

1:30—Selecting the Best Breeders (Oral Symposium), Directing: John C. Hogg. Responding: H. C. Short, N. C. Jensen, M. S. Fortune.

2:30—Earlier Package Colonies with Pollen and Added Stores (Symposium), Directing M. G. Dadant. Responding: M. J. Deyell, T. L. Aamodt, R. H. Kelty.

3:30—Better Directions for Installing Packages—Allen Eby, Eugene D. Cutts.

Evening Session

7:30—Better Queens from Grafted Eggs (Pictures and Lecture)—Jay Smith.

Wednesday January 15

Morning Session

9:30—Shipping Bees and Queens by Air—W. W. Owen, G. G. Puett.
10:00—Report of Committees—
Election of Officers.

10:30—Our 1948 Convention.

NATIONAL FEDERATION PROGRAM

1:30—Invocation.
Formalities.

Committee Appointments.

Report of Secretary-Treasurer.

2:30—President's Address — John W. Holzberlein, Jr.

3:00—Marketing Outlook for 1947

—D. B. Bradshaw.

3:30—Supplies and Equipment for 1947—Alan Root.

4:00—Current Government Rules and Regulations—Harold J. Clay.

8:00—National Beekeepers Auxiliary, American Honey Institute—Board of Directors. American Beekeeping Council. Resolutions Committee and Clearing Committee (Joint meeting).

Thursday—January 16
Morning Session

9:30—Research Committee Report.

9:45—Immediate Prospects for Improved Stock:

Commercial Breeder—J. W. Newton.

Research Breeder—Otto Mackensen.

Commercial User—As seen by the Lab.—Jas. I. Hambleton.

10:45—Agricultural Research Act of 1946 and its Application to Beekeeping—(Dr. P. V. Cardon, director of the Agricultural Research Administration has been invited to address us.)

11:30—American Honey Institute —Mrs. Harriet M. Grace, Lewis Parks.

12:00 M.—Luncheon Meetings — Resolution Committee. Nominating Committee.

Afternoon Session

1:00—Report of nominating committee.

1:10—Soil Conservation and the Honeybee—(Dr. Bennett, head of the Soil Conservation Service, has suggested Verne E. Davison, Regional Biologist of the Southeastern Region, and he has been invited).

2:00—Beekeepers' Rights Committee Report.

2:15—Solving the Poison Problems Through—

Research—Dr. J. E. Eckert.
Education—Woodrow Miller.
Legislation—

Enforcement—

3:30—Honey and Pollen Plants Committee Report.

3:45—The Honey Plant and Pollination Program for all America—R. B. Willson.

4:30—Report of Clearing Committee.

6:30 P. M.—Banquet—Dr. E. F. Phillips, Toastmaster.

Friday, January 17

Morning Session

9:30—Honey Grades Committee Report.

9:45—Report of Resolutions Committee.

10:15—Election of Officers.

11:00—Sulfa Drugs—

Their Use—L. Haseman.

Their Misuse—Chas. Reese.

Commercial Use—

The Hangover—

James Gwin

Afternoon Session

1:30—Executive Committee.

Such other committees or groups as care to meet.

Hotels in Tampa, Florida

The details of the annual meeting are being worked out at this time and we feel you will want to make early arrangements to attend. With meetings of allied groups to be held at the same time we will probably be in Tampa for most of the week beginning Sunday, January 12th.

Hotel accommodations are not too plentiful and we are giving the names and rates of Tampa Hotels so you can make your reservations in good season. Present indications are that the meetings will be in the city auditorium and that the official headquarters will be the Hillsboro Hotel.

Bay View	DT	\$2.00 to \$5.50
Casa del Sol	DI	2.50 to 4.00
DeSoto	DT	2.00 to 3.50
Edgewater	SUB	3.50 to 5.00
Floridian	DT	3.00 to 10.00
Hillsboro	DT	3.00 to 8.00
Knox	DT	1.25 to 3.50
Lafayette	DT	2.00 to 3.50
Mirasol	DF	2.50 to 7.00
Hudson Manor	DI	1.50 to 3.00
Park	SUB	1.25 to 4.00
Puritan	SUB	2.00 to 4.00
Tampa Terrace	DT	3.00 to 10.00
Thomas Jefferson	DT	2.00 to 6.00

Key—
DT—Downtown—All hotels within radius of 3 blocks from center.

DI—Davis Islands—In Bay ten minutes ride from center.

SUB—Suburban—Within five or ten minutes from center.

Note: Double up when possible, as the number of single rooms is limited.

(Federation News Letter.)

Iowa Association, Ames,

November 20-21

The Iowa Association will hold its

annual meeting at Ames, November 20 and 21. This date has been established so Iowa may participate in a series of meetings developed by the Federation, at which time it will be possible to secure the services of national speakers. Detailed programs will be available for distribution by November 1.

By F. B. Paddock,
Extension Apiarist,
Ames, Iowa.

• • •
**Minnesota Association, St. Paul,
November 25 and 26**

The Minnesota Association will hold its regular fall convention, November 25 and 26 in the Colonial Room at the Lowry Hotel, St. Paul. Pres. C. S. McReynolds has arranged an excellent program. Convention sessions will be devoted to honey prices, production methods, pollination and problems of poisoning, and inspection and disease control. The annual banquet with a surprise program will be held in the Spanish Room on the evening of the 25th. This will provide every beekeeper with an evening worth remembering.

C. D. Floyd, Secretary.

• • •
**Montana Association, Helena
November 25-26**

The Montana Association will hold its annual meeting at the Placer Hotel, Helena, November 25 and 26. Glenn Jones, Secretary of the National Federation of Beekeepers Associations will speak. Mrs. Harriet Grace of the American Honey Institute, is also expected. Also other prominent beekeepers. Banquet on November 25 at 6:00 P. M.

Mrs. O. R. Burdett,
Secretary-Treasurer.

• • •
**Empire State (New York) December
6 and 7**

A meeting of the Empire State Honey Producers' Association will be held Friday and Saturday, December 6 and 7, at the Onondaga Hotel, Syracuse. A special banquet honoring Dr. E. F. Phillips will be held in the evening of December 7. An excellent program has been arranged which will include talks by nationally-known men. This promises to be one of the outstanding meetings. All interested in beekeeping are invited to attend.

E. T. Cary, Secretary.

**California Convention, Calexico,
December 11-13**

Claude Austin, president of the California Association has arranged for the annual convention in Calexico, December 11, 12, and 13. Housing conditions are crowded but arrangements are being made by a local committee headed by Mrs. O. P. Mandrapa, N. Heber Street, Calexico, to whom reservations should be sent by those expecting to attend. Hotels generally require deposits these days for reservations, so a deposit should be sent with the request. An interesting program has been arranged, including ample time to learn something of Imperial Valley conditions and a possible trip to Mexicali.

J. E. Eckert, Apiculturist.

• • •
**Washington Association, December
3-4, Wenatchee**

The Washington State Association will hold its annual meeting at Wenatchee on December 3 and 4.

(Wired from H. S. Records, Sec.)

• • •
**National Beekeepers' Auxiliary
Meeting**

The National Beekeepers' Auxiliary will hold its annual meeting at Tampa, Florida on Wednesday and Thursday, January 15-16, 1947. An interesting program is being prepared. There will be speakers each forenoon from 9:30 to 12:00, a luncheon at some interesting place at noon, and a tour of Tampa gardens and beauty spots in the afternoon. On Thursday evening we will attend the Federation banquet. Every beekeeper's wife is invited to attend this meeting.

• • •
**Federation Meetings In North and
West**

After the natural delays to be expected in corresponding with so many people in such widely separated areas, it is now possible to give the schedule of a series of meetings arranged for the states of Iowa, North Dakota, Montana, Idaho, Washington, Oregon, and California. Dates and places will be as follows:

Iowa, at Ames	Nov. 20-21
North Dakota, at Fargo	Nov. 23
Montana, at Helena	Nov. 25-26
Idaho, at Boise	Nov. 29-30
Washington, at Yakima	Dec. 3-4
Oregon, at Portland	Dec. 6-7
California, at Calexico	Dec. 11-12-13

This series will offer to many the opportunity to visit beekeepers of this area with the minimum of time and expense, an opportunity not often presented. It will give the beekeepers of this area the opportunity to entertain visitors and speakers who would not find it possible to travel so far for one or two meetings.

Interest in the series has been great, and those who have expressed a desire to attend include Jas. I. Hambleton and C. L. Farrar of the Bee Culture Laboratory, Harold J. Clay of the Production and Marketing Administration of the USDA, Mrs. Harriet M. Grace of the American Honey Institute, and M. G. Dadant of the American Bee Journal.

Any others who can arrange to attend all or part of the series are cordially invited and we will be pleased to hear of their intentions.

Do not neglect this opportunity.

• • •
**Government Honey Crop
Report Estimates**

The October honey report from the Bureau of Agricultural Economics, Washington, D. C., reports an estimated crop of a little over 209,000,000 pounds for 1946 or about 10% less than in 1945.

The average production is 36.4 pounds per colony compared to 42.7 pounds in 1945 and 36.2 pounds in 1944.

The size of the crop although the per colony average is less is due to considerable increase in the number of colonies in 1946.

Increases are reported in the south-Atlantic states and in California, Texas and Florida with smaller crops in the west, north, central east, north central and north-Atlantic states although there were increases in Missouri and Kansas.

According to the report the leading states this year were California, Minnesota, Florida, Iowa, Texas, Ohio and Indiana.

We assume that a complete report of the entire year will be available later on.

• • •
Top Entrance

My, My, all this gibber gabber over the top entrance. Everybody trying to make a hard thing out of an easy matter. I will have to explain how I do it. Take the top cover off, tack

two small $\frac{1}{8}$ inch strips of wood on the inside of the front cover. Move the inside cover $\frac{1}{8}$ inch back from the front. Put the top cover back on. The $\frac{1}{8}$ inch strips on the inside of the front cover prevents the top cover from closing off the opening along the front by moving the cover back. Now close the bottom board only by reducing it to the small entrance. By leaving a small opening at the bottom the bees will clean house and carry out the dead. Now this top entrance can be left as it is both winter and summer. Lets the bees out of not one little hole but a long strip. They can crawl out from any comb they happen to be on without crawling along to the center. In summer it acts as a ventilator. In spring I simply remove the bottom entrance board all the way.

Lyn R. Schuler,
Washington, D. C.

Another Bee Book

From England comes a different kind of bee book. It is "Honey Farming" by R. O. B. Manley author of a similar book published some years ago, "Honey Production in the British Isles." Manley is one of the few practical beekeepers among the authors of British books on bees. His "Honey Farming" is the result of many years of experience in the production of honey as a means of livelihood and is written for those who have some knowledge of bees. It is designed to give direction to those who have in mind to take up commercial honey production.

Manley gives an interesting account of his early years with bees and of the experiences through which he passed in the building of his business. He discusses very frankly the limitations of the men who with limited experience assume to write for the bee press and who have retarded the development of honey production in Great Britain. He writes for the experienced beekeeper and includes but little of the material found in the usual beginners book. There is extended discussion of bee pasture, a matter of first importance. Mention is made of the fact that great variation is common in the harvest of locations less than a mile apart and that the quality of the honey often varies greatly at nearby points.

An extended discussion of the breeding of bees is followed by chapters on seasons, swarm control,

honey harvest, control of disease and other subjects of direct interest to the full time honey producer.

While it is written for conditions prevailing in the British Isle there is much of interest to Americans as well. The price is given at 18 shillings and the publishers are Faber and Faber of London.

The Development of Beehives

The first beehives were the hollow trees where the wild bees made their nests and stored their honey. When bees were first domesticated, the people often just sawed off a section of hollow tree, but this did not work very well because it was quite unhealthy and it was very hard to remove the honey. Then the people made straw hives, but these also were not very good because they did not have removable frames. These were called skeps.

In the early eighteenth century Huber, a Swiss naturalist, invented a leaf hive with frames hinged like leaves in a book. This also was a failure because bees would glue the leaves together with bee glue because there was not a correct bee space. In 1851 Langstroth developed the first of the removable frame hives with a bee space of $\frac{1}{8}$ inch all around the frame for the bees to crawl through. This was large enough for the bees to crawl through, yet small enough so they did not fill it up with bee glue or extra comb.

On this first hive, developed by Langstroth, all modern beehives are based. We now have beehives of several different sizes, but all have the same features, especially the bee space, that Langstroth had in his first hive made in 1851.

By Charles Jorgenson,
Minnesota.

Deer Love Sweet Clover

Did anyone ever notice how fond deer are of sweet clover? I planted a trial plot of biennial white on my mountain and it did well until the deer found it. After that it was kept closely grazed. The deer were already well fed, too; for in this region is an abundance and variety of shrubs and grasses. A plot of alfalfa was also well liked, but was not so closely eaten as the sweet clover.

W. L. Arant, Oregon.

What Price Package Bees for 1947?

We held the line for 1945 and 1946 without increasing prices. It's doubtful that we can do it again, but

we'll stay in line in the meantime.

File your order early with \$1.00 deposit to hold your preferred shipping date, and we will invoice you for balance when prices are announced. Don't be late: Demand, this year, will far exceed supply. We cannot accept orders beyond our normal capacity. You can't be too early—it's easy to be too late.

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REAL HONEY GETTERS
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A. H. RUSCH & SON CO.
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Italian Package Bees
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The Leading Bee Journal of the
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Middle Tennessee Apiaries : Leather Colored Italian Queens

From imported breeding stock. 1-25, \$1.25 each. 26 or more \$1.10 each. One-fourth books orders—balance before shipping. All queens clipped and by air mail at no extra cost. **ALL QUEENS AFTER JUNE 15TH \$1.00 EACH.**

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White and Amber Extracted Wanted. We pay the highest ceiling prices. Prompt remittance.

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OLD COMB AND CAPPINGS

We use steam hydraulic wax presses that extract 100% of the wax and our rendering charges are very nominal. We charge only 2 cents a pound for wax rendered when your shipments of old comb weighs 100 pounds or more, 3 cents a pound on smaller shipments. Send for shipping tags.

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SEND FOR OUR MONEY-SAVING CATALOG

THE FRED W. MUTH COMPANY

Pearl and Walnut Streets, Cincinnati 2, Ohio, Telephone MAin 3068

Better Bred Queens—3-Banded Italians

We thank our many customers for their patronage this season. We are now booking orders for 1947.

CALVERT APIARIES

Calvert, Alabama

QUEENS

QUEENS

QUEENS

We are making a special effort to furnish you more and better three-banded Italian queens, carefully produced and selected for high production in our customer's colonies.

PRICES

June 1st, 1946, through Sept. 30th, 1946

1-11, \$1.00 each; 12-99, 90c each;
100 and over, 80c each

"Live Delivery and Your Satisfaction Are Guaranteed"

**JOHN C. HOGG, Apiarist
TIFFON, GEORGIA**

American Bee Journal Want Ads Bring Results

Beekeepers Are So Scotch

(Continued from page 467)
supering so that the influx of honey in the top super forces the queen downstairs where she is able to lay late eggs insuring an adequate force of young bees for the winter cluster. This also gets the pollen placed downstairs and a solid body of honey upstairs.

October 1st we begin to check the colonies for stores, seeing that each two story colony is provided with about sixty pounds of honey, an adequate force of young bees and ample supplies of pollen and this is all the packing we use—packing the hive internally with these three integrals: young bees, honey and pollen!

Though asters will probably yield nectar until the 15th of October, this expected honey is not counted at this moment and if they get more we allow the colonies to supplement their sixty pounds in any way they please—the more, the merrier! Mouse guards are placed upon the entrance and an auxiliary flight hole is added to the top of the hive.

Being against defacing hive bodies with holes we add a one and a half inch rim below the escape board which has a hole bored to allow for the escape of moisture and the cleansing flights of the bees during the winter months. We also use the "Johnson porch" which was devised by Mr. George Johnson of Pemberton. This consists of one inch strips of shingles allowing two for each colony. On the thick end of each of these two strips a three inch strip to form a porch that is just the width of a hive body is nailed. The feather edges of these strips are fitted toward the back of the colony allowing the escape board to fit snugly upon the backs and two sides, yet allowing an opening along the front of the hive. This front opening may be covered with a strip of lath with a flight hole bored in the center. The cover fits down upon the porch yet allows the bees to have access to the outer air.

With the application of these winter porches and the stapling of the covers so the wind does not lift the covers we know that the bees are ready for winter—and so are we.

At this winter's annual meeting when asked that usual question: "How many colonies do you have?" we won't be able to answer that we have a thousand, but we will be able to say: "Our colonies are better prepared for winter than ever before!" New Jersey.

Honey Ceiling Released

(Continued from page 460)

Bear in mind that although de-controls were placed in effect on honey prices, the use limitation order still remains at this date (October 18). The limitation order restricts the amount of honey that can be used in the manufacture of food products. No person or firm can use more than 600 pounds in any one quarter, or 120% of the amount used by him during the corresponding period of 1941. Beekeepers as well as buyers and users of honey can now sell or purchase honey without being restricted by any governmental price regulations. See Crop and Market page for further particulars of present price ranges.

It is to be hoped that the beekeeping industry will realize the effects of extreme prices on honey and naturally the driving away of our best customers, should other sweets become more plentiful or when they do become plentiful. We had similar circumstances following the World War No. I. Let us not now repeat.

As one beekeeper stated, "It is hard to sit on the lid without being blown up." At the same time, we need to have mature judgment and many beekeepers are fixing their prices at what is apparently a fair range rather than take all the traffic will bear.

"Relationship of Moisture Content and Yeast Count In Honey Fermentation"

This is a reprint from Scientific Agriculture, June, 1946 by W. A. Stephen, Experimental Farms Service, Ottawa, Canada. In the summary a study of the relationship of the moisture content to fermentation and yeast count carried on with 700 samples of Canadian honey under laboratory storage condition shows about 25% fermentation within the year. Increase in fermentation of samples was greatest in honey of 17 to 18% moisture. For each increase of 1% in moisture content yeast count may be expected to increase about 5-fold. Rate of increase in yeasts, in general, parallels rate of increase in fermentation. Both yeast count and fermentation are influenced by the length of time which honey takes to granulate. Above 19% of moisture, honey may not granulate as readily, thus influencing yeast growth and consequent fermentation.

1947 PACKAGE BEES AND QUEENS - ITALIAN

We are fully prepared in the way of bees and equipment to fill your orders. The demand for packages and queens is increasing and we expect an early sell out. We guarantee live delivery—full weight—young queens—health certificate. 10% books your order—balance 10 days before shipping.

PRICES ON ORDERS BOOKED BEFORE JANUARY 1, 1947

2-lb. with young laying queen	\$4.00
3-lb. with young laying queen	5.00
Queens	1.25

Rt. 2, Box 9 SUNKIST BEE COMPANY, Houma, La.

SPECIAL ANNOUNCEMENT

This is to advise our friends and customers that the NEWTON & LOTT BEE COMPANY has effected a friendly and cordial dissolution.

We each want to thank our many friends and customers for years of faithful patronage and continue to solicit your friendship and patronage to our independent operations.

Each will operate independently hereafter under the titles of :

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ROUTE 2, BATON ROUGE, LA.



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**Dadant's
Thin Surplus
Foundation**
▼

A dainty, sweet base for a perfect section of honey. Made of the lightest-colored, most fragrant capping wax. A touch of the tongue crushes it in the mouth, yet it is strong enough to carry the weight of honey. So pliable the bees work it out fully.

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Our breeding queens of a hardy Italian strain, which for a period of 5 years have been selected only from our highest honey producers.

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2-lb. package with queen	\$4.00 each
3-lb. package with queen	5.00 each
Queens	1.25 each
Tested queens	5.00 each

SOUTHLAND APIARIES : MONTGOMERY & SON : Ball, La.

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Reliable and Responsible Dealers in Honey

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QUEENS: \$1.00 Each 90c Each 85c Each 75c Each 70c Each

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HONEY GETTING by E. L. Sechrist. Stresses fundamentals of beekeeping as applied to honey production. Cloth, 130 pages \$1.50.

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We will replace any queen that fails to live up to our guarantee, or arrives dead or in poor condition.

Orders booked subject to your approval when prices are quoted. Your deposit of 10% not required until then.

BOOKED FOR APRIL

Queens for balance of season, \$1 each

THE RICH HONEY FARMS
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ITALIAN BEES AND QUEENS

WE REGRET THAT WE DO NOT HAVE ANY MORE OF OUR FINE ITALIAN QUEENS, BUT WE ARE BOOKING ORDERS FOR 1947.

B. J. BORDELON APIARIES, Moreauville, La.

WE REGRET

Having to turn away customers. Although we are again increasing our production we can make NO SACRIFICE of QUALITY and SERVICE for QUANTITY. Please send no more orders for package bees for 1947 delivery. ITALIANS AND CAUCASIANS.

WEAVER APIARIES : Navasota, Texas

ITALIANS

QUEENS

Daughters of Queens
bred for Resistance

CAUCASIANS

Bred to Italian
Drones

All three races bred in separate yards.

2-lb. pkg. bees with queen \$4.00 Extra queens \$1.25 each. Over 25 years
3-lb. pkg. bees with queen 5.00 a shipper in U. S. A. and Canada.

Sulfathiazole used in feed at no extra cost to you. MASTER MIX POLLEN made from soybean flour, cottonseed meal, brewers yeast, skim milk, natural pollen, invert sugar and Sulfatizazole, 10-lb. pail \$2.50; six pails \$13.50. Send for FREE Circulars.

Blue Bonnet Apiaries, R. 2, Box 23, Weslaco, Texas

► QUEENS ◀

Package bees, old line bred since 1924. Book now for 1947. Queens raised from stock of over 200 production after pulling bees all season. Resistant queens limited rest of season. Let me quote price on entire apiary requeening this fall.

Homer W. Richard : Rt. 3, Box 252-A, El Dorado, Ark.

QUEENS : BESSONET'S : PACKAGES

Thanks to our many customers for their patronage in the past and to those whom we have not been able to book for 1947, we again express our sincere regrets.

BESSONET BEE COMPANY : Donaldsonville, La.

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Quality Italian Package Bees and Queens

1947
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THE BLUE BOOK OF BEEKEEPING

By E. L. Sechrist

Something brand new in bee books, the principles of getting a maximum crop, at minimum expense. E. L. Sechrist was beekeeping specialist for the U. S. D. A.; also a commercial beekeeper in the U. S. and in the tropics.

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Dadants
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will assure you fine
combs.

You are protected too,
when you know it is
made of pure beeswax.

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Classified Advertisements

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BREWER'S LINE-BRED CAUCASIAN QUEENS—Book your order for April delivery now. Write for prices and terms. No package bees. Brewer Brothers Apiaries, 3217-J Hawthorne Road, Tampa 6, Florida.

BOOKING ORDERS for 1947—Caucasian and Carniolan package bees. Subject to prices November 1st. Tillery Brothers, Greenville, Alabama.

THREE-BANDED Italian queens—1 to 25, \$1.10; 25 up, \$1.00 each. Alamance Bee Company, Graham, North Carolina.

MINNESOTA and Northern Iowa beekeepers contact us now for 100% full colonies on 9 combs in spring of 1947. Repert's Honey Farms, Rt. 5, Shreveport, Louisiana.

ITALIAN QUEENS—Satisfaction assured. 1.00 each. Write for quantity prices. Lange Apiaries, Llano, Texas.

PACKAGE BEES, QUEENS, Italians. Circular free. Crenshaw County Apiaries, Rutledge, Alabama.

HONEY AND BEESWAX WANTED

WANTED—Will pay top price for pure aster honey. Robt. W. Lane, Greeneville, Tenn.

BEESWAX WANTED. Highest cash price. Ship to Berman Bros. Fur and Wool Co., Minneapolis, Minnesota. Est. 1899.

HIGHEST PRICES paid for light extracted honey in 60's. Guy Polley, Nevada, Iowa.

HONEY WANTED—All grades and varieties. State quantities, how packed. Can use capper and second grade honey also. Natural Foods Institute, 624 Prospect Ave., Cleveland, Ohio.

Missouri's largest honey packers want large quantities of comb and extracted honey. Highest cash prices paid. Write us what you have. Frank King and Son Honey Co., 326 S. Bales Ave., Kansas City, 1, Missouri.

WANTED up to 100 cans of light colored honey. Please write stating price. Paul O'Black, Willard, Wisconsin.

WANTED—Your honey, any amount. Will give top prevailing prices. Herald Partello, Rt. 2, Boone, Iowa.

WANTED—Honey, strained, chunk or section. No amount too large nor too small. Top price. Spot cash. Lose Brothers, 206 E. Jefferson St., Louisville 2, Ky. Call J-A 1015 collect.

WANTED—Clover extracted and comb honey. Any quantity. C. Jankowski, Prairie View, Illinois.

HONEY AND BEESWAX. HIGHEST PRICES PAID. MAIL SAMPLES, ADVISE QUANTITY. BRYANT AND SAWYER, LOS ANGELES, CALIFORNIA.

HIGHEST CASH PRICES paid for all grades extracted honey. Prairie View Honey Co., 12203—12th St., Detroit 6, Mich.

WANTED—Light, extracted honey, clover preferred, in 60's. J. Jones, 115 West 82 St., New York 24, N. Y.

HONEY WANTED—Top prices paid. Write immediately. J. Wolosevich, 6315 So. Damen Ave., Chicago, Illinois.

WANTED—Extracted clover honey in 60's. B. I. Evans, Windom, Minnesota.

CLOVER HONEY WANTED in 60's. Large or small lots. Send sample and state quantity. Ellsworth A. Meineke, Arlington Heights, Illinois.

HONEY WANTED—All grades, carloads or less. Also beeswax. Pay top prices. H. & S. Honey & Wax Company, Inc., 265-267 Greenwich St., New York 7, N. Y.

WE PAY CEILING PRICES for wax, and remit the day the wax is received. Your wax made into medium brood foundation at 14¢ per lb. The Hawley Honey Co., Iola, Kansas.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

WANTED—Extracted honey, white or light amber, in 60's. Ed. Heldt, 1004 W. Washington St., Bloomington, Illinois.

HONEY WANTED—Small or large lots. Send sample and amount. Rocke Apiaries, Eureka, Illinois.

CASH FOR YOUR WAX the day received. Write for quotations and shipping tags. Walter T. Kelley Co., Paducah, Kentucky.

SUPPLIES

YOUR WAX WORKED into high quality medium brood foundation 17 cents per pound; 100 pounds \$14.00. Fred Peterson, Alden, Iowa.

N. W. HEADQUARTERS FOR LEWIS-DADANT BEE SUPPLIES and honey containers. Send for price lists. Highest prices paid for comb and extracted honey and beeswax in cash or trade. Honey Sales Company, 1806-08 No. Washington Ave., Minneapolis 11, Minnesota.

INSTANT seven, eight and nine Frame Spacers. Fast, accurate. \$1.50 postpaid. Simplex trap clips queens without handling. \$1.75 postpaid. Free circulars. George Ley, 48 Drake Avenue, New Rochelle 2, New York.

HONEY MELTER—Two "WEEKS TUBES" with full directions—\$2.00, postpaid. Cans of sugared honey become fine, light, well-flavored product. Never over-heated. BEEKEEPER'S HOIST, \$25.00, or build your own. Specifications free for stamp. Turner Mfg. Co., Corning, Iowa.

FOUNDATION—Crimp-wired Brood and Super foundation. Thin surplus and Cut Comb. Simeon Beiler, Intercourse, Pa.

ATTENTION BEEKEEPERS IN MINNESOTA, Wisconsin, Iowa, N. D. and S. D. Buy Lewis-Dadant Bee Supplies and Honey Containers in Minneapolis and save. Send for price lists. **TOP PRICES PAID FOR HONEY AND BEESWAX IN CASH OR TRADE.** HONEY SALES COMPANY, 1806-08 No. Washington Ave., Minneapolis 11, Minnesota.

WRITE FOR CATALOGUE. Quality bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries. Manufacturers of Beekeepers' Supplies, Onsted, Michigan.

PORTER BEE ESCAPES are fast, reliable, labor savers. R. & E. C. Porter, Lewistown, Illinois.

LARGE CASH SAVINGS can be made by letting us work your wax into either wired or plain foundation. Large independent factory manufacturing a complete line of bee supplies including extractors, etc. Selling direct saves you the agent's profit. Quick shipment from large stock. Large free catalogue explains everything. Walter T. Kelley Co., Paducah, Kentucky.

FOR SALE

We are getting along in years. Will sell all or one-half interest in our bee and honey business. 200 colonies. Equipment and bees, clean and first class. C. W. Grader, Forks, Washington.

FOR SALE—30 frame Woodman extractor in A-1 shape. Harry H. Harwood, Chinook, Montana.

FOR SALE—1000 standard 10-frame colonies. Bees free from disease and in the finest equipment money can buy. All equipment goes. Write for prices. Can furnish health certificate. Clyde Gault, Box 703, Buhl, Idaho.

47 ACRES, buildings, stock, equipment, 200 fruit trees, \$8,000. O. Frederick, Fredericktown, Ohio.

65 COLONIES and equipment for sale this fall only. \$1,000 takes everything. Or will trade for fine stamp collections. 20% off on all new beeware on \$100 orders. Tom Beddoes, 318 Alliance Ave., Rockford, Illinois.

FOR SALE—33 colonies of bees partly in Modified Dadant hives, ready for the winter. Certificate of inspection furnished. Eddie Sondelski, Rt. No. 2, Dancy, Wis.

HONEY LABELS—Improved designs, embossing color, balance, simplicity and distinction. Please send for free samples and prices. C. W. Aepple Company, Oconomowoc, Wisconsin.

WANTED

WANTED—Bees and equipment. Ernest Fahlbeck, 406 South Springfield, Rockford, Illinois.

WANTED—Good 11-frame Modified Dadant Equipment with or without bees. Clyde Corn, Lees Summit, Missouri.

MODIFIED DADANT HIVES and shallow extracting supers, with or without bees. This equipment must be in good condition. Gerhard Borgen, Lanesboro, Minnesota.

BOOKS WANTED—Controlled Mating of Queen Bees by Watson; Queen Rearing Simplified by Jay Smith; Baby Nuclei by Swarthmore; Improved Queen Rearing by Alley. Write Kenneth Hazard, 80 East Longwood, Detroit 3, Michigan.

WANTED—Old out of print bee books. We have calls from libraries, etc. Let us know what you have and we will quote price. American Bee Journal, Hamilton, Illinois.

SEEDS AND TREES

FOR SALE—BASSWOOD TREES, foot to ten foot tall. Write for circular on nectar and pollen producing shrubs, trees and perennials. Plant for permanent nectar and pollen during the lull of early spring and fall, when your bees need it the most. Nicollet County Nursery, St. Peter, Minn.

ANISE-HYSSOP SEED. Packet 25c; $\frac{1}{2}$ ounce \$1.10. James Beecken, Elgin, Illinois, Rt. 1, Bx. 275.

POSITIONS WANTED

SERVICE MEN AS HELPERS in my migratory bee business. Can start immediately. Three year training program with related instruction. Write full qualifications, education, etc. Paul D. Thompson, 500 South Almer, Street, Caro, Michigan.

WANTED—Two experienced men for queen rearing and honey production. Good wages, steady or seasonal. Start January first. Walter D. Leverette, Fort Pierce, Florida.

WANTED—Capable, experienced package man and helpers; also queen breeder with the qualifications our business requires. Partnership considerations on demonstration of worthiness. War veterans invited to investigate. Old established firm with finest clientele and good reputation. Well balanced outfit with all good equipment and facilities for carrying on a high type business. No encumbrances. Owner wishes to shift responsibility to younger shoulders. Good opportunity for hustling and honest men. Box J, care American Bee Journal.

WANTED—A good experienced beeman. Large outfit, good working conditions and wages. Permanent. You must know the business. Box MW, American Bee Journal.

MISCELLANEOUS

EARTHWORM CULTURE—Send postcard for valuable FREE bulletin, with review on "Intensive Propagation and Use of Earthworms in soil-building." Thos. J. Barrett, Earthmaster Farms, Box 488-H, Roscoe, California.

INDIAN BEE JOURNAL—Official organ of the All India Beekeepers' Association. Yearly subscription price \$1.50 a year (7s 6d) by international money order. Address INDIAN BEE JOURNAL, Ramgarh, Dist. Naini Tal, U. P. India.

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND

GOAT RAISER reaches more sheepmen with more information on range sheep than any magazine published. Subscription \$1.50. Hotel Cactus, San Angelo, Texas.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents, stamps. Membership of the Club, including subscription to the paper 10/6. The Appis Club, The Way's End, Foxton, England.

**Look in the classified—
You might find it there**

Are you a true Beekeeper? What can you see ahead?

Sure you are and we believe you see a bright future for bee-keeping and honey production, in addition you see the need and possibilities in pollination by honeybees.

HOW CAN THESE CONDITIONS BE MET?

PACKAGE BEES are the only way to handle the situation and get the fullest results. To allow your apiary to decrease in number of colonies is expensive. To allow your colonies to swarm for increase is more expensive, amounting to greater per colony operation cost, through less honey to sell, less pollination, wasted territory.

WHERE SHOULD PACKAGE BEES BE SECURED?

We are in position to supply you Dark Italian bees that are easily handled, winter well, conserve stores keeping the brood nest well rounded and compact, Build up rapidly in spring, and produce greater surplus for your increased profit.

Order as soon as possible and have the satisfaction of knowing your order is placed and will be shipped on time. Our service is second to none.

Prices will be advertised as soon as possible.

"THEY PRODUCE"

Rossman & Long
Box 133 MOULTRIE, GA.

**WHILE THEY LAST
TANQUARY QUEENS
ALL NOVEMBER
85c Each
ANY NUMBER**

**TANQUARY HONEY FARMS
LENA, SOUTH CAROLINA**

QUEENS

Queens will be obtainable from us during November. Write us promptly. Same fine quality at October prices. Booking 1947 orders now subject to prices to be announced soon. Reasonable increases planned.

**GARON BEE CO.
DONALDSONVILLE, LA.**

It is never too late

to get the help which is available to you in daughter queens of "DR" stock. It will be a real help in your fight to control American foulbrood.

The performance of this stock is why beekeepers are placing repeat orders for larger numbers of queens. Satisfaction is what you get with the use of this stock.

This stock has been improved each year by scientific selection. No other stock can offer the quality of parentage, of rearing methods and of apiary testing service. So why not buy those queens which will give you the greatest value.

WRITE FOR SHIPPING DATES.
NO CHANGE IN PRICES FOR THIS SEASON.

**Iowa Beekeepers Association
STATE HOUSE DES MOINES 19, IOWA**

Crop and Market Report

Compiled by M. G. Dadant

For our November Crop and Market page we asked reporters to answer the following questions:

1. How is final crop compared to 1945?
2. Condition of bees for winter?
3. Condition of honey plants?
4. What price is honey since ceiling removal? Carload; Retail 60-lb., 10-lb., 5-lb., 1-lb.

Total Crop

The general rule the country over, the total crop this year will be far less than a year ago. In the New England States and New York and Pennsylvania probably not over 40 to 50% with some exceptions in the southeastern part of New England, namely, Connecticut, New Hampshire and Massachusetts.

Along the east coast, the crop has been much better than a year ago which was a failure. Georgia is not reporting quite as much as last year although Florida in many cases much more.

Throughout the entire South the crop will about equal last year's total but Pennsylvania will run short of a year ago. Ohio reports are conflicting but apparently not over a general 50 or 60% of last year, which was short. Southern Michigan similarly with northern Michigan perhaps nearly as much as last year. Indiana apparently will have almost as much as last year, particularly in the southern sections with Illinois falling quite short. Missouri probably more than last year and this applies also to eastern Kansas and Nebraska. Iowa 40 to 60%, Wisconsin the same and Minnesota perhaps 70%; with North Dakota approaching near last year's total.

The Inter-mountain States do not seem to have had as much as last year

although there are conflicting reports from different sections of Montana. Nevada had a failure last year and has much more honey this year. Idaho 40 to 100% and same in Washington and Oregon. Northern California apparently has far more honey than a year ago and perhaps even the southern sections have because of the extremely short crop last year.

All in all the total crop we would not think would run 80% of last year, although government preliminary reports just now out report only 10% less than a year ago apparently based on a larger number of colonies of bees, most certainly not on per colony production.

Condition of the Bees

With the short crop, of course, the condition of the bees is not probably as good as a year ago, although the late fall flows have been good and in many cases yielded a little surplus besides putting the bees in excellent condition. Many reports however, indicate that feeding will be necessary and total condition of bees compared to last year will not probably exceed 90%.

Honey Plants

Apparently the late rains have had some beneficial effect, although we do not believe that the general reports will give the honey plants more than 80 to 90% of a year ago because in many cases it has been too dry for the clovers to come forward and in others in the Central West, sweet clover has been plowed under. All in all, the crop is short and the bees are not in quite as good a condition and the honey plants similar.

Prices

Here we have the widest ranges. Many of the beekeepers had already sold practically all of their crop at ceiling prices or above ceiling where they took the notion. Those that still had honey on hand, many have de-

cided to go along with their customers on only a small advance whereas the most of them have gone up to about a basis of 25 cents in 60's, \$3.00 for 10 pound and \$1.50 to \$1.75 for 5 pound, with 40 cents in single pounds. We hear of prices as high as \$4.50 for 10-pound pail and \$3.00 for 5-pound which is badly out of reason, we believe.

Carload prices reported are from 18 cents to 27 cents with the bulk showing 20 to 25 cents for such car-loads as have been sold although reports of offers as high as 30 cents are given by our reporters. All in all, as a general rule, I think one would be safe in saying that the post-ceiling prices are approximately on the basis of 40 cents, \$1.75, \$3.00 and 25 cents in 1, 5, 10 and 60-pound cans respectively. This looks like almost a little out of range, although when we compare the amount of care given to bees this year and the shortage of the crop, perhaps it is not a great deal more than remunerative. For the man with a 100-pound average with honey still on hand, however, it represents a "bonanza."

We hope that the high prices will not have the effect of creating resentment on the part of the consumer which will reflect unfavorably when the future lower prices reign. There is no question but what all honey will move on a basis of a 20 to 25 cent price.

Opportunities for the Disabled

Illinois, in cooperation with the Federal Government, operates a Vocational Rehabilitation Program in all counties to train or retrain individuals vocationally handicapped because of physical disability. Any person with a permanent physical disability which prevents him from earning a livelihood is eligible, provided:

1. He is sixteen years or older, not attending public school.
2. An American citizen.
3. A resident of the state at least one year.
4. Reasonable assurance the person will be able to engage in a normal occupation.

Person eligible or interested should write James F. Miller, Room 204, W. C. U. Building, Quincy, Illinois.

HONEY WANTED Carloads or Less
HIGHEST PRICES PAID
LEWISA. KONCES CO.
NORTH ABINGTON, MASS.

One Can or a Carload—What have you? Mail your offerings to us.—Prompt action. Cash on delivery.
JEWETT & SHERMAN CO.
Lisbon Rd. & Ervins Ave.
Cleveland, 4, Ohio.

HONEY WANTED Cars and less than cars
Top Prices
C. W. AEPPLER CO., Oconomowoc, Wisconsin

York's Package Bees & Queens

Quality Bred Italians For 1947

Orders are being placed rapidly for the coming season, which indicates the demand will surpass past seasons. Determine your needs and place your order now without further delay. We are booking orders subject to new revised prices for 1947 which we will announce later. No deposit required until prices are established. We will be fully prepared to supply highest quality bees which are so much in demand by leading honey producers who know. Ask any of our customers.

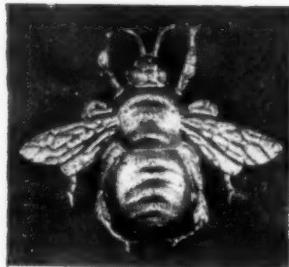
York Bee Company, Jesup, Ga., U. S. A.

(The Universal Apiaries)

STARTING WITH THE AUGUST ISSUE

we gave a new name for our magazine, which was formerly called THE BEEKEEPERS ITEM. We like the new name and believe that you will. The name is distinctive and it implies mechanism, the sulfa drug and everything that is new and worthwhile that we are bringing to your attention.

We are making our magazine into the picture magazine of the industry. We are taking our readers with us on trips to bee meetings and showing them in pictures what we saw. Every month we have worthwhile articles on various phases of beekeeping, articles that you, as a beekeeper, cannot afford to miss.



Pictured at the left is a bee pin that we are offering in connection with our magazine. This is a photograph of the pin and is approximately the same size. These are sturdy gold-plated pins, fitted with a special spring tension arrangement, but no safety catch.

MODERN BEEKEEPING

One year with the bee pin, \$1.25

Modern Beekeeping

WALTER T. KELLEY, Editor

Paducah, Ky.

The Postscript

One of the most interesting plants in our test garden this year is a perennial bean received from Ben P. Edgerton, of Hicksville, Ohio. It blooms in late summer and has masses of bright purplish flowers which attract the bees in large numbers. Since the plants make such heavy growth they offer promise for use in meadows or pastures, although apparently never used in this manner. Before flowering it resembles a wild bean that is something of a nuisance in some places. This perennial bean grows wild in the Southeast and in the Mississippi Valley but appears to have attracted little attention.

Mr. Gerald Prilaman, of Exeland, Wisconsin, has had the bees store the juice from red raspberries to make a red honey similar to that mentioned in this column. The sample we received resembled jelly as much as honey and perhaps that may have been the source.

S. H. Burton, of Washington, Indiana, is enthusiastic about the bluevine or vining milkweed for bee pasture. It yields heavily at times and the honey is of good quality but the plant is a weed and a serious pest in corn fields on lowlands. It is perennial and once established is difficult to eradicate.

Fred M. Sickler, of Bonsall, California, calls attention to the fact that J. S. Harbison in his book, "Bee-keepers Directory," published in 1861, suggested that the planting of button willow would prove to be a paying investment. Harbison stated that as a source of superior quality and quantity of honey buttonbush stands unrivaled. However, such yields as we know today were apparently uncommon then for Harbison stated that strong colonies would store from one to three pounds of surplus per day from this source.

Elgin Greenfield, of Meaford, Ontario, reports that neighboring farmers are growing a large acreage of rape and that the bees harvested

a golden honey from it. Although there was not a heavy surplus all colonies needed supers and the rape flow carried the bees over a period which otherwise would have been a dearth.

From New Zealand comes a report of honey from rape of the finest quality, with strong colonies storing two supers in favorable weather. The quality of the honey is reported as varying with soil conditions and granulating very quickly.

C. C. Ames, of Durham, Oklahoma, tells of the bees filling a super of honey from cleome, or Rocky Mountain bee plant in seven or eight days. The plant is drought resistant, with a long blooming period coming late in summer after the clovers are done. The honey he says is of excellent quality and light in color. Good crops have also been reported from this source in Colorado.

L. M. Allen, of Greensboro, North Carolina, gives an interesting account of the Caryopteris, commonly called blue spirea, which blooms for a long period and is visited by the bees constantly when in flower.

This shrub is not winter hardy north of the Carolinas but is sometimes grown as a pot plant. Southward it can be planted in the open with confidence. The profuse clusters of blue flowers is its principal attraction.

Robert Hardin, of Atlanta, sends me an interesting account of the opening of the Okefenokee Swamp Park. Indications are that tourists will now be able to see one of the most interesting spots in America with little inconvenience. On one occasion, many years ago, I went with J. J. Wilder to visit Hamp Mizelle at the end of a logging road 25 miles within the swamp. Wilder had bees at several places but the destruction of colonies by bears was such as to make it an unsatisfactory business to produce honey there. At that time the swamp was a hide-out for moonshiners and there were numerous stories afloat about visitors who went

into the swamp and failed to come out again.

From A. B. Crowder, of McKenney, Virginia, comes a surprising story of the finding of a colony of big bees which fit the description of the giant bee of India, (*Apis dorsata*). Since all efforts to import that bee to this country have ended in failure it hardly seems possible that it could have been introduced accidentally. The question remains as to what insect it is that fits the description. My guess is that it may prove to be the European hornet, (*Vespa crabro*), which is described as being a dark brown and yellow color. It is said to make its nest in a hollow tree and to be very pugnacious. Further reports will be awaited with interest.

Our good friend George H. Rea was the first full-time extension specialist in apiculture on permanent appointment after passing a civil service examination. His service began on September 1, 1916, with work in North Carolina. Since that time he has given similar service in New York, Pennsylvania, and Tennessee. He was not only the first extension specialist but one of the best to appear in the thirty years that have since passed. Our pioneers should not be forgotten and Georgia is certainly worthy of a medal for outstanding services to the industry.

From G. Heriot, of Monaco, who keeps his bees at La Turbie above Monte Carlo, comes the report that bees do work the wild violets in that country. He has also seen bees on the cultivated violets. The blooming time there is February and March. It is a mild climate with some frost in winter.

Our friend notes that there is little about rosemary, thyme or lavender in this magazine and he wonders at the lack of interest in this country. The reason, of course, is that they are very little known in America. Wild thyme does yield honey in a few localities where it has become established in New England and New York. It grows only on acid soils and for this reason is not known in the great mid-western region. Lavender is cultivated to a limited extent in California but is too tender for much of our northern regions. Rosemary was common in gardens of an earlier day but is seldom mentioned now.

Frank C. Pellett.

1896—50—1946

Years' Experience

In all our 50 years, we have never experienced the difficulties in getting materials for manufacturing beekeeper's supplies, like the season now drawing to a close.

We are completely sold-out of all items, with the exception of 5 pound and 10 pound honey containers (pails).

We suggest you watch this ad for details of the proposed 1947 outlet, information we expect to have by the end of this year. Revised price list will be available at that time.

We say "thank you" to our customers for your patronage and apologize for all orders it was necessary to return unfilled.

MARSHFIELD MFG. CO.
MARSHFIELD, WISCONSIN

A Thought For Next Year

With the sugar situation still acute and the demand for honey probably greater than it has ever been, we should do everything we can to produce every pound of honey next year.

Be sure that all colonies you expect to winter have plenty of good stores, good clusters of young bees, a good queen and adequate protection.

Then get all hives and equipment ready for next spring, and if you have any extra hives, fill them with packages. We expect the demand to be greater than ever for packages and queens, but we will make every effort to produce every one possible, consistent with our usual quality.

Let's make 1947 a Honey Year; and when you think of package bees or queens, remember that's our speciality.

THE STOVER APIARIES
MAYHEW, MISS.

TANQUARY'S ITALIAN BEES AND QUEENS

With over 35 years of honey production in the Northwest, we know what kind of packages and queens the buyer wants. Good bees; Good weight packages; Good queens and shipped on time. It's certainly our aim to do this.

We advise you to place your orders now for 1947 delivery. We are booking up fast. We will book you now subject to prevailing prices.

We guarantee safe arrival on bees and queens. Queens clipped at no extra cost.

PRICE LIST

LOTS OF QUEENS DURING MONTH OF NOVEMBER, 85 CENTS, POSTPAID

Quantity	1 to 24	25 to 49	50 to 99	100 up
2-lb. packages with queen	\$4.15	\$4.05	\$4.00	\$3.70
3-lb. packages with queen	5.15	5.05	5.00	4.70
4-lb. packages with queen	6.15	6.05	6.00	5.70
5-lb. packages with queen	7.00	6.90	6.85	6.65
Tested queens	2.10	2.05	2.00	1.75
Untested Queens	1.35	1.30	1.25	1.15

Queenless packages, deduct \$1.10 per package.
Package bees F. O. B. Queens postpaid.

TANQUARY HONEY FARMS, INC.
LENA, SOUTH CAROLINA

HOMES COME FIRST



—but we will do our best to supply bee-hives made from substitute lumbers not fully restricted for building construction as available.

On September 1, 1946, the use of Shop grades of western pine, normally used for beehive production, were frozen by government order for use only on millwork for homes. Substitute species and grades of lumber not already restricted to home building will, therefore, have to be used for beehive construction.

The necessity of finding new sources of supply for substitute lumbers will in itself delay production of beehives, but we shall do our best to meet these conditions and to continue to supply this needed equipment.

We hope this emergency in home construction will be quickly met and that the above government orders may be relaxed soon.



THE A. I. ROOT CO.
MEDINA, OHIO

